DOCUMENT RESUME

ED 363 055 EC 302 511

AUTHOR Donahue, Alice; Gross, Shelley
TITLE A Focus on Integration: Including All Students. Structuring Schools for Student Success...Publication 17019.
INSTITUTION Massachusetts State Board of Education, Boston.
PUB DATE Jan 92
NOTE 70p.
PUB TYPE Viewpoints (Opinion/Position Papers, Essays, etc.) (120) -- Information Analyses (070) -- Reports - Descriptive (141)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Compliance (Legal); Curriculum; Delivery Systems; Demonstration Programs; *Disabilities; Educational Cooperation; Educational History; *Educational Practices; Elementary Secondary Education; Family School Relationship; Interdisciplinary Approach; *Mainstreaming; Professional Development; *School Organization; *Social Integration; State Legislation; State Programs; Student Evaluation
IDENTIFIERS *Massachusetts

ABSTRACT

This paper provides an overview of educational, legal, and philosophical aspects of integration of Massachusetts students with disabilities. It discusses effective practices based on current research, the experience of parents and practitioners, and model programs. Introductory sections consider the importance of the integration concept and offer an historical and legal perspective. Support for integration is documented with a literature review examining benefits of integration and the efficacy of the existing service delivery system. Specific practices that promote integration are offered. These address: (1) school organization; (2) curriculum, pedagogy, and evaluation; (3) professional development; and (4) student, family, and community collaboration. Recommendations are then offered for each of these areas. Integrated programs in nine Massachusetts school districts are described. Appendices provide the following: statutory and regulatory definitions; guiding questions for the evaluation process; strategy ideas for supporting students in regular classes; and specific change strategies in each of the four listed areas. (Contains 150 references.) (DB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 363 055

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

STRUCTURING SCHOOLS FOR STUDENT SUCCESS...

A FOCUS ON INTEGRATION:

Including All Students

© Massachusetts Board of Education
January 1992

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
P. J. Meleen
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

EC 302 311

BEST COPY AVAILABLE

Massachusetts Board of Education

Mr. James F. Crain, Gloucester, Chairperson
Mr. William K. Irwin, Jr., Wilmington, Vice Chairperson
Mr. John J. Gould, Boston
Dr. Jerome H. Grossman, Chestnut Hill
Martin S. Kaplan, Esquire, Newton
Mr. S. Paul Reville, Worcester
Dr. Richard R. Rowe, Belmont
Ms. Theodora A. Sylvester, Springfield
Mrs. Frances M. Turner, South Egremont
Rev. Michael W. Walker, Brockton
Dr. Joan Wallace-Benjamin, Boston

Ex Officiis
(Voting Privileges)

Mr. John David Cashman, Marblehead
Chairperson, Student Advisory Council

Dr. Piedad Robertson, Secretary
Executive Office of Education

(Non-voting Privileges)

Mr. Paul G. Marks, Chancellor
Higher Education Coordinating Council

Ms. Rhoda E. Schneider, Acting Commissioner and Secretary
to the Board of Education

Developed by:

Mary-Beth Fafard, Associate Commissioner
The Division of Special Education

Elizabeth Twomey, Associate Commissioner
The Division of School Programs

Written by:

Alice Donahue, Educational Consultant
Shelley Gross, Educational Consultant

Consultation by:

Susan Gurry, Ed. D., Associate Professor, Graduate School
Lesley College

January 1992

The Massachusetts Department of Education ensures equal employment/educational opportunities/affirmative action regardless of race, color, creed, national origin or sex, in compliance with Title VI and Title IX, or handicap, in compliance with section 504.

Publication # 17019 1/92
Approved by State Purchasing Agent

STRUCTURING SCHOOLS
FOR STUDENT SUCCESS...

A FOCUS ON INTEGRATION:

Including All Students

© Massachusetts Board of Education
January 1992

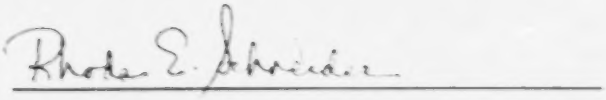
A focus or integration:

Throughout the years, the educational system has been dependent upon separate classes and separate schools to deliver needed educational services to students with special needs. One result is a dual system of education in which students with special needs are separated from their nondisabled peers for all or part of the school day.

Building the capacity of regular education to educate all students remains a critical task facing educators. The literature documents that integration is beneficial for nondisabled students and for students with special needs. Many studies suggest increased benefits not only for students but also for professionals, families, and the larger community. Massachusetts law recognizes the importance of integration in its mandate for placement of students with special needs in the least restrictive environment.

This advisory, A Focus on Integration: Including All Students, offers a statewide dialogue on integration by posing critical questions school districts and families ask as they initiate integration activities. In addition, the paper presents an overview of the pertinent educational, legal, and philosophical aspects of integration. Effective practices based on current research, the experience of parents and practitioners, and a sample of model programs are included as well.

With the 1990 passage of the Americans with Disabilities Act, our nation is affirming once again a national policy of inclusion for all people with disabilities within our society. As educators in Massachusetts prepare to enter the twenty-first century, regular education and special education must join together in a comprehensive examination of existing programs and practices to ensure the inclusion of all students in the richness of school and community life.



Rhoda E. Schneider

ACKNOWLEDGMENTS

We appreciate the many thoughtful comments from the professionals below:

A Focus on Integration Advisory Committee

Cynthia Baribeau, Member, State Advisory Commission on Special Education
Richard Carlson, Superintendent, Frontier Regional School District
William Henderson, Principal, Boston Public Schools
Karla Kirkland, Parent
Julia Landau, Massachusetts Advocacy Center
Johanna Moran, Teacher, Peabody Public Schools
Edward Orenstein, Director of Student Services, Belmont Public Schools
Carrie Rafferty, Teacher, Holden Public Schools
C. G. Shaffer, The Network, Andover, MA
Raymond Sylvain, Director of Special Education, East Longmeadow School District

In addition, the Division of Special Education and the Division of School Programs extend appreciation to the many others inside the Department of Education who offered their time, expertise, and experience:

Kristen Apgar
Barbara Ascheim
Alice Barton
Susan Freedman
Dan French
Marie Fricker
Linda Gerstle
Terry Hamilton

TABLE OF CONTENTS

Why Discuss Integration Today? 1

Historical and Legal Perspective 3

Support from the Literature
- Benefits of Integration 4
- Efficacy of the Existing Service Delivery System 6

Practices that Promote Integration
- School Organization 9
- Curriculum, Pedagogy, and the TEAM Evaluation Process 10
- Professional Development 13
- Student, Family, and Community Collaboration 14

Recommendations for the Integration of All Students
- Recommendations for School Organization 16
- Recommendations for Curriculum, Pedagogy, and the TEAM Evaluation Process 17
- Recommendations for Professional Development 19
- Recommendations for Student, Family, and Community Collaboration 20

Descriptions of Integrated Programs 21

Conclusion 25

Appendices
- Appendix A: Statutory and Regulatory Definitons 27
- Appendix B: Guiding Questions for the TEAM Evaluation Process 29
- Appendix C: Strategy Ideas for Supporting Students in Regular Classes 31
- Appendix D: Techniques To:
  - Address School Organization Factors 35
  - Improve Curriculum, Pedagogy, and the TEAM Evaluation Process 36
  - Address the Professional Development of Regular and Special Educators 37
  - Increase Student, Family, and Community Collaboration 38

Endnotes 39

Selected Bibliography 51

WHY DISCUSS INTEGRATION TODAY?

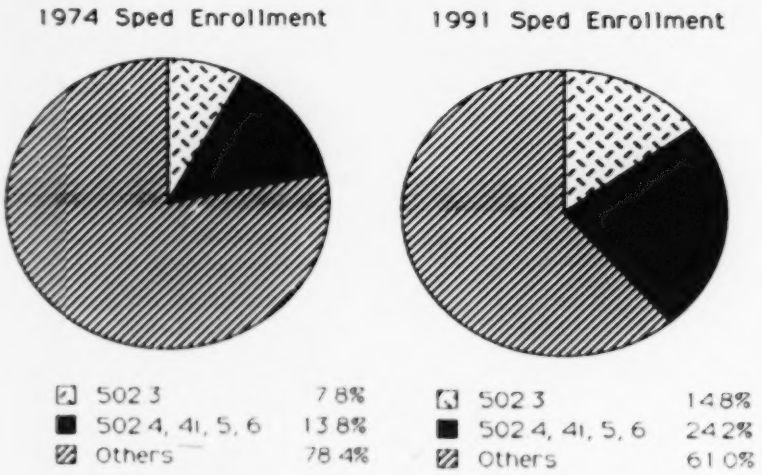
> Integration is a broad term which refers to the opportunities for the student with a disability to have access to, inclusion in, and participation in all activities of the total school environment. Effective integration means planning and providing maximal opportunities for interactions between non-disabled students and their peers who have disabilities. These interactions can and should occur in a variety of settings and ways. [1]
>
> **Taylor, Biklen, Lehr, and Searl**

An inclusive concept, integration enables a student with special needs to participate fully in the regular education environment physically, socially, and academically. More comprehensive than the practice of academic mainstreaming, integration is differentiated by the scope of activities in which the student is engaged. An integrated program recognizes the strengths and needs of the whole student, including the physical, social, and academic, giving equal consideration to each of these in the development of program options. It embraces the student with special needs by including him/her as an integral member of the regular class.

An integrated program recognizes the strengths and needs of the whole student, including the physical, social, and academic, giving equal consideration to each of these in the development of program options.

While the intended outcome of special education legislation has been to ensure the opportunities of students with special needs to be educated with their nondisabled peers, this goal has not been achieved for many students. Due to the development of a separate service delivery system, e.g., pullout, separate classes, as the primary mode of special education instruction, a dual system of education has emerged in which students with special needs are separated from their nondisabled peers for part or all of their school day. [2]

In Massachusetts, as in many states, a larger percentage of students with special needs are enrolled in programs at the more restrictive end of the service delivery continuum than ever before. A Massachusetts Department of Education analysis of October 1, 1990 enrollment data reveals that of the 17% public school aged children and youth enrolled in special education programs across the state, 24.2%, or nearly one of every four, students in special education, is attending special classes or special day and residential schools for 60% or more of his/her school day. [3] This represents an increase of 209% during the past fifteen years (see graph on next page). In addition, the percentage of students enrolled in special education programs for up to 60% of their school day has increased over the past fifteen years by over 200% (see graph on next page).



Key to Prototypes

502.3	Regular education program with no more than 60% time out of the class
502.4	Substantially separate special class placement
502.4i	Substantially separate special class placement in a facility other than a public school regular education facility
502.5	Special education day school program
502.6	Special education residential school program

With the growing reliance on separate programs to deliver support services to students with special education needs, a reexamination of these programs is warranted.

With the growing reliance on separate programs to deliver support services to students with special education needs, a reexamination of these programs is warranted. Several questions relevant to such separate programs need to be raised: Does this method of service delivery work? Have separate programs been effective in meeting students' instructional needs? Have they been effective in preparing students with special needs to participate more successfully in regular education programs and within the community?

This paper addresses these questions by presenting an overview of the legal mandate for the education of students with special needs, a summary of recent research on integration, recommendations that school practitioners and families can follow, and samples of integrated programs. The next section offers an historical and legal perspective of special education.

HISTORICAL AND LEGAL PERSPECTIVE

> I believe the burden of proof ... ought to rest with that administrator or teacher who seeks ... to segregate [a handicapped student] from nonhandicapped children....[4] **Miller**

During the early seventies, the principle of equal educational opportunity was extended to students with special education needs in the Pennsylvania Association for Retarded Children v. Commonwealth of Pennsylvania (PARC) [5] and Mills v. D.C. Board of Education (Mills) [6] cases. In both cases, the federal courts strongly endorsed the rights of students with special needs to participate in school programs within the Least Restrictive Environment (LRE) that could provide the type and quality of service required to meet the unique educational needs of each student.

It is not a prerequisite to placement in the least restrictive environment that a student with disabilities learns at the same level and/or rate as his/her classmates.

In drafting special education legislation, the framers of both P. L. 94-142 (reauthorized in 1990 as P. L. 101- 476, the federal Individuals with Disabilities Education Act, IDEA) and Chapter 766 of the Acts of 1972 of the Commonwealth of Massachusetts indicated a strong preference for integrated programs for students with special needs (see Appendix A for statute and regulation references). The laws specifically provide that to the "maximum extent appropriate" students with disabilities will be integrated with nondisabled students in academic and nonacademic activities. Both laws ensure that special education services and supports can be provided in the regular education classroom and that students can be separated from regular education only when there is clear evidence showing that even with additional services, e.g., specialized equipment, modified curriculum, classroom aides, participation is not deemed appropriate. It is not a prerequisite to placement in the least restrictive environment that a student with disabilities learns at the same level and/or rate as his/her classmates.

Both the federal and state statutes contain specific language that emphasizes the preference for the least restrictive environment as the program option of choice. Congressman Miller, a framer of P. L. 94-142, established this legislative intent by underscoring the student's right to be in a regular classroom and by compelling educational personnel to demonstrate that removal is warranted. The presumption in Congressman Miller's statement is that the regular education environment is the preferred placement option for students with special needs.

This implies that educators are obliged first to provide accommodations and services for students with special needs within the regular classroom before considering a separate instructional setting in which there may be no opportunity to interact with nondisabled peers. The fundamental right to interact educationally and socially with nondisabled peers underlies the concept of the least restrictive environment.

SUPPORT FROM THE LITERATURE

> The ultimate rationale for quality education of students in an integrated setting is based not only on law and pedagogy, but also on values. What kind of people are we? What kind of society do we wish to develop? What values do we honor?[7]
>
> **Gartner and Lipsky**

A review of the literature provides solid support for both the concept and practice of integration. The national movement toward inclusionary schooling has helped to stimulate research in the practical aspects of integration. Issues covered in the literature focus on the benefits of integration, the efficacy of the existing service delivery system, and the instructional practices and models that make integration work. The literature shows that integration is beneficial for students identified with mild, moderate, and intensive special needs.

There is ample evidence that integration is beneficial for students with special needs as well as for their nondisabled peers.

This section provides a synopsis of the literature and helps to answer the questions: What are the benefits of integration? Has the existing service delivery system been effective in meeting students' instructional, social, and behavioral needs? What supports are necessary to make integration work? Will integrated programming prepare students with special needs to participate more successfully in school and within the community?

To better understand the factors involved in the process of integration, those factors pertaining to the benefits of integration and the efficacy of the existing service delivery system are examined below.

Benefits of Integration

> The trend toward mainstreaming and integration coincides with the effective school movement initiated by regular educators to identify organizational factors that positively influence classroom learning. Both of these developments emphasize diversity and the importance of a quality education for students. Most importantly, they recognize the value of creating learning environments that maximize the opportunity for all children to learn.[8]
>
> **Berres and Knoblock**

There is ample evidence that integration is beneficial for students with special needs as well as for their nondisabled peers. The stated benefits of integration for students with special needs include: improved social and academic skill development; improved educational outcomes; more effective preparation for independence and community life; and improved opportunities for obtaining gainful employment upon graduation.[9] Further, nondisabled peers and students with special needs enrolled in

integrated activities develop an appreciation of individual similarities and differences.[10] In fact, data show that nondisabled peers gain in academic achievement when they participate in integrated programs.[11]

Movement toward an inclusionary education stems from a growing recognition, partly based on effective schools research, that among the characteristics contributing to a productive learning environment is the use of heterogeneous grouping.[12] This grouping practice that accommodates the increasing student diversity found in today's society has been particularly effective with students with low achievement. "Research indicates that students of lower ability experience greater academic gains in classes that include high ability students."[13] Heterogeneous student groupings also promote the use of instructional practices, such as cooperative learning, which result in improved student achievement.[14] Thus the movement toward integrated programs is an application of what now is recognized as effective instructional practice for all students.

There are distinct advantages for nondisabled peers participating in integrated programs. For instance, students without disabilities are likely to gain a sense of perspective from participating in integrated programs.[15] Parents of nondisabled students in Washington cited gains in self-esteem and social opportunities as the reasons they strongly support their children's participation in integrated programs.[16] In a Delaware study of integrated programs in which regular and special education teachers collaboratively taught integrated classes, nondisabled students had the greatest gains in academic achievement.[17]

Thus the movement toward integrated programs is an application of what is now recognized as effective instructional practice

The increased participation of students with special needs in the regular education class reduces the amount of instructional time students would miss if they were to receive special education services outside of the regular classroom. The provision of instructional services in one setting ensures continuity in instruction, consistency in teacher expectations, and a more cohesive educational program. Perhaps the most important finding of one study is that "pull-in" or integrated programs foster teacher collaboration focused on instructional planning, thus enabling teachers to accommodate student differences in their design of instructional activities.[18]

Another benefit of integrated programs is that students with special needs, who have the opportunity to practice needed skills in an integrated environment, are more likely to generalize those skills across environments.[19] Research demonstrates that "planned, structured and continuous integration activities" are essential if students with special needs are to demonstrate consistently meaningful change in social behavior or attitude.[20] Thus, students with special needs have increased opportunities to enhance their development of functional academic and social skills when participating in integrated programs.

Additionally, researchers studying the integration of students with intensive special needs indicate that integration is beneficial for all students.

Results indicate that students with intensive special needs who were placed in integrated settings had educational outcomes, e.g., academic achievement, that, at a minimum, were comparable to those in a separate special education setting, but more often were significantly improved. [21] Further, one study suggests that the integration of students with intensive special needs leads to educational advantages as measured in students' progress on their IEP objectives. [22]

There are long-term benefits of integration for students with special needs that extend beyond the school environment. Students who graduate from integrated programs have more opportunities and success in community-based services as adults. [23] There is further evidence that students with special needs who attend integrated programs are much more likely to secure and retain employment when they leave school. [24]

Of particular importance to students with special needs and their parents is the opportunity integration provides for structured and casual interaction with nondisabled peers. As students with special needs are integrated into regular classrooms, their nondisabled peers become an important source of modeling, assistance, and friendships. For many students the sense of belonging to a nondisabled peer group is one of the most enriching aspects of integration. Friendships that begin within the classroom setting often extend outside of the school environment and facilitate integration in the larger community. The importance of friendships is recognized by professionals who often engage nondisabled peers in planning and implementing integrated activities. [25]

As students with special needs are integrated into regular classrooms, their nondisabled peers become an important source of modeling, assistance, and friendships.

Finally, integration provides a financial benefit to school systems because it ultimately results in a more cost efficient system. Cost savings are accrued through reduced transportation costs, the placement of regular and special education programs into one building, the consolidation of administrative responsibilities for both regular and special education, the more efficient utilization of educational and remedial services, shared curriculum materials and resources, and the availability of peer tutors. [26]

One study reports cost savings for regular and special education when students with special needs receive services in an integrated classroom model as compared to a resource room model. [27] This conclusion is supported by data accumulated through both the federal Department of Education in 1985 and 1989 [28] and Fink in 1979 [29] showing that integrated programs are cost effective. While this conclusion should not be the primary rationale for developing integrated programs, the potential for cost savings and improved education for students are important considerations.

Efficacy of the Existing Service Delivery System

Data bring into question the efficacy of the existing special education service delivery system in which students with special needs are removed from regular education classrooms to receive needed services. This has

generated additional support for the movement toward integration. Critics cite discrepancies among regular and special education curriculum and instruction, loss of instructional time as students move between programs, and the difficulty in generalizing skills across environments as factors that limit the effectiveness of this model.[30] Consequently, integration is viewed by many as a viable service delivery system because it effectively addresses many of the concerns identified.

Research indicates that special education programming, particularly the use of the "pullout" or separate model, has not achieved the kind of results lawmakers anticipated when legislation was enacted. The high dropout rate of students with special needs, the trend toward long term placement in special education programs, and a lack of evidence that separate special education programs produce better student outcomes than mainstream programs provide additional evidence of the problems inherent in special education's service delivery system.[31]

Questions about the efficacy of the pullout model are underscored by current placement trends showing that a greater number of students are being placed in more restrictive placements than ever before. This shift toward more restrictive placements, along with the trend showing that students with special needs are returning to regular education programs at a slow rate, causes concern to many.

Research indicates that special education programming, particularly the use of the "pullout" or separate model, has not achieved the kind of results lawmakers anticipated when legislation was enacted.

The Department of Education enrollment data confirm that students with special needs frequently have difficulty reentering regular education programs after being identified as students with special needs. Over the past 10 years in Massachusetts, only five percent of the students enrolled in special education returned to regular education programs each year.[32] This disturbing trend is reflected in the results of a study published in 1988 indicating that a large percentage of students with special needs[33] remains in the same special education program for more than two years. Thus, placement in special education programs potentially becomes, for the majority of students, a final educational designation. While it is recognized that there are students who may require special education services for all of their schooling, an increased progression toward inclusion in regular education should occur.

In direct contrast with this trend, a recent study showed that participation in an integrated program resulted in greater academic growth for students with special needs and accelerated the return of these students to regular education programs. This research project contrasted the academic achievement of students with special needs enrolled in an integrated program to students with special needs enrolled in special classes and revealed that those participating in the integrated program outperformed their peers in special classes by an average of six months. At the end of the study, 30 percent of the students with special needs who had been in the integrated class no longer needed special education services and remained in the regular education program.[34]

When students with special needs are placed in programs that separate them from their nondisabled peers for all or part of the school day, important learning experiences are missed. The opportunity for students with special needs to learn through observing and modeling the skills and behaviors of nondisabled peers, for example, an effective strategy in promoting academic and social skill acquisition, becomes limited. [35] Participation in a pullout model also reduces opportunities for students to practice newly learned skills in regular education classes, an important strategy for helping students to generalize skills across environments. [36]

The notion that students with special needs perform better in pullout special education programs has been challenged in various studies. "Segregated approaches have led to curricular discontinuities and interruptions in instruction. In many cases, pullout programs result in substantial reductions in the amount of instructional time." [37] This point is especially noteworthy since effective schools research indicates that the single most important variable affecting academic achievement is the amount of instructional time provided. [38]

When students with special needs are placed in programs that separate them from their nondisabled peers for all or part of the school day, important learning experiences are missed.

It is more difficult for students with special needs to participate in regular education programs when there are discrepancies among regular and special education curriculum demands, instructional materials, and instructional practices. To alleviate the discontinuities that exist between regular and special education programming and to enhance the potential for generalizing learned skills across environments, regular and special education programs need modification. [39]

Often standard curriculum and instructional practices in education are ineffective in meeting the needs of diverse learners. Regular and special education curriculum and instructional practices must ensure that students with special needs learn the important skills required to be successful in school. Modifications and adaptations needed by students with special needs must be a vital part of the learning environment.[40]

Despite the questionable effectiveness of the current practice of pulling students out of classrooms to provide special education, not all professionals or parents embrace the concept of integration. There is a perspective held by some that the movement toward integrated programming is inappropriate and/or untimely. This view is based on the belief that regular education is not sufficiently prepared to provide the type and quality of instruction required by students with special needs. Reservations about the capacity of regular education teachers to accommodate learner diversity, availability of individualized attention in a regular classroom setting, accessibility to specialized instructional materials, and the comfort level of students with learning problems competing with their nondisabled peers are among the concerns articulated by opponents of integration. [41]

While these concerns cannot be dismissed out of hand, the literature as well as the experience of practitioners in the field show that they can be overcome. Through professional development activities, a reallocation

of resources, and the examination of the overall service delivery system, school districts across the state have implemented successful integrated programs for students with special needs (see section, Descriptions of Integrated Programs). Practices that have proven effective in supporting the integration of students with special needs are described in the following section.

PRACTICES THAT PROMOTE INTEGRATION

> There is value in the evidence that substantial improvements occur when teachers accept the responsibility for the performance of all their students and when they structure their classrooms so that student success is the primary product of the interpretations that take place there. And, there is value in the evidence that the gains demonstrated by effective instruction are not bound to the setting in which the teaching occurred or the label assigned to the student who received it. [42]
>
> **Algozzine and Maheady**

The successful development of integrated programs for students with special needs is dependent on the school's ability to change existing practices and structures that inhibit integration activities. There are four components of the school environment that warrant particular consideration: school organization; curriculum, pedagogy, and the TEAM evaluation process; professional development; and student, family, and community collaboration. Following is a discussion of each area as it pertains to integration.

At the school building level, the principal's attitude toward having students with special needs in regular classes significantly affects a school's atttitude toward integration.

School Organization

Specific factors of school organization critical to the integration process include appropriate accommodations; access to school buildings and necessary resources; common planning time; ongoing communication among regular and special education teachers, parents, and other TEAM members; and negotiation of the daily schedule. These factors need to be addressed when planning and implementing an integrated program. The literature, as well as direct feedback from practitioners in the field, concur that these variables are important.

At the school building level, the principal's attitude toward having students with special needs in regular classes significantly affects a school's attitude toward integration. [43] The principal as educational leader, manager, and teacher evaluator influences the distribution of resources, the expectations held for teacher and student performance, and collaboration with parents and other TEAM members. As a result, the principal's attitude tends to be reflected by his/her staff. [44] Whether the school committee and/or superintendent supports integration also influences the attitudes of the principal and his/her teaching staff.

While the support of the administration is important, other variables need to be in place for integration to occur. Regular education teachers who receive appropriate and ongoing technical assistance from special education and support personnel have more success with integration.[45] Positive outcomes of such professional collaboration include the ability to reconceptualize student needs, an increased acceptance of students with different levels of cognitive ability, and professional satisfaction with jointly developed interventions. When regular and special education teachers share responsibility in the planning and delivery of services to students with special needs, the expertise and expectations of both disciplines combine to create a more holistic educational environment for all learners.[46]

The professional skills and services of school nurses, reading teachers, guidance counselors, social workers, psychologists, special educators, and other support personnel need to be available to teachers as they develop and continue to refine programs for individual students. An understanding of how each student in the class learns is essential for teachers as they modify instruction to accommodate individual differences.[47] The growing number of school districts that have developed interdisciplinary teams to plan and implement integrated programs reflects the importance of collective technical skill and judgment offered by teams that include teachers, parents, and other personnel.[48]

An understanding of how each student in the class learns is essential for teachers as they modify instruction to accommodate individual differences.

Recognition of the importance of professional collaboration can be found in school districts across the Commonwealth that have created teaching teams comprised of regular and special education teachers to staff integrated programs. By combining the skills of both disciplines to teach integrated classes of students, schools have successfully integrated students with mild, moderate, and intensive special needs without diminishing the quality of instruction provided.[49] The level of integration supported through this model can range from one instructional period per week to fully integrated classes that function as a single entity for the entire school day. The value of this model is derived from the immediate availability of specialized support for students, access to the regular education curriculum, and program flexibility. Co-teaching models exist in all types of communities and serve students from preschool through high school (see section, Descriptions of Integrated Programs).

Curriculum, Pedagogy, and the TEAM Evaluation Process

At the beginning of the evaluation process, evaluation TEAMs must give consideration to the Least Restrictive Environment (LRE) provisions of the special education mandate in order to increase integration opportunities for students with special needs. This will also assist schools in complying with the Chapter 766 Regulations, which include provisions to ensure that special education services are provided within the least restrictive environment (see Appendix A).

The TEAM meeting is the appropriate forum to discuss methods for

providing special education services in an integrated setting (LRE) and/or for planning future integration activities. Whether conducting an initial evaluation, reevaluation or annual review, the TEAM should consider **at a minimum**: a) options for providing special education and/or other support services/aids in the regular classroom; b) instructional strategies that will assist the student in developing skills that accommodate his/her learning difficulty; and c) specific activities into which the student can be integrated. To assist evaluation TEAMs in making such determinations, a list of guiding questions is included in Appendix B.

A growing body of evidence is available showing that certain instructional strategies and/or curriculum approaches facilitate integration and increase the achievement of all students.

Additionally, TEAMs should work together to establish goals and objectives that will assist teachers in identifying curriculum content in order for students to develop needed skills. The IEP should provide a "blueprint" to help teachers make appropriate choices in designing curriculum and planning instruction for students with special needs. [50] Comparable to outcome based education that is gaining popularity across the country, this approach requires educators to describe the competencies and knowledge intended as the end products of instruction. When teachers clearly understand what a student is expected to learn or master, instruction becomes more effective and achievement increases. [51]

A growing body of evidence is available showing that certain instructional strategies and/or curriculum approaches facilitate integration and increase the achievement of all students. For example, cooperative learning, peer tutoring, the use of technology, and a more comprehensive learning styles approach have proven effective with all learners. Among the curriculum approaches effective with diverse learners are a developmentally based curriculum, an applied curriculum, and a curriculum that includes social skills training. [52]

Of particular importance to both regular and special education teachers is the demonstrated effectiveness of strategies that are successful with heterogeneous groupings of students and that do not compromise or diminish the curriculum standards of the classroom. Cooperative learning is one such strategy receiving attention because it has proven effective in expanding higher level thinking skills, enhancing problem solving abilities, and developing appropriate social skills. Effective with heterogeneous groupings of students, cooperative learning is a teaching approach dependent on the contributions of all group members. It provides structured and supported opportunities for social interactions and success in producing student outcomes closely linked to school achievement [53] (see Appendix C, Strategy Ideas for Supporting Students in Regular Classes, for more information).

As teachers seek new ways to provide individual support to increasingly diverse student populations, peer tutoring programs have become more popular. Bolstered by research demonstrating benefits to the peer tutor as well as to the student receiving tutorial support, teachers find this strategy particularly helpful when tasks involve drill and repetition. [54]

Peer tutoring promotes improved student performance, and thus enhances the likelihood that students participating in integrated programs will be successful [55] (see Appendix C, Strategy Ideas for Supporting Students in Regular Classes, for more information).

In the primary grades, a developmentally based curriculum is considered by many to be more appropirate in meeting the needs of young students than the traditional curriculum used in most schools. Proponents of this curriculum model point out that school tasks are more appropriate when they are compatible with a child's physical, intellectual, social, and emotional stages of development, thereby minimizing the potential for school failure and grade retention. [56] Specific learning approaches that are used in a developmental curriculum include whole language, inventive spelling, creative play, and hands-on learning activities.

A key finding of effective schools research is that a well disciplined school environment promotes student achievement. [57] Consequently, many schools are adopting a preventive approach to discipline, which includes clearly delineated rules for student behavior, a well ordered classroom, and social skills training as part of the regular education curriculum. A curriculum module of this type ensures that all students are provided the opportunity to learn about social convention through a cognitively and affectively based instructional approach. With an emphasis on problem solving and communication skills, social skills training also has desirable academic outcomes. [58]

Students with special needs who experience difficulty in such areas as independent work habits, social skills, and/or large group instruction benefit from direct instruction specifically designed to develop these skills. [59] Since much of the regular education curriculum taps into these skill areas, students benefit from structured learning activities designed to help incorporate these skills into their repertoire of learning strategies. [60] Regular and special education teachers who work to develop effective group and independent work habits as well as appropriate social skills find the integration process more effective.

Students with special needs who experience difficulty in such areas as independent work habits, social skills, and/or large group instruction benefit from direct instruction specifically designed to develop these skills.

Traditional methods of measuring student learning do not routinely produce the kind of information that assists teachers in making instructional decisions for students. While norm-referenced testing is often the basis for judgments about student skill development in content areas, these tests do not measure how well students have mastered the curriculum presented within the classroom. [61] Consequently, more teachers are using curriculum based assessment because it is instructionally relevant to student learning. The benefits of curriculum based assessment include: test items are drawn from the student's curricula; testings are repeated over time; and assessment information is used to inform daily instructional decisions. [62]

There is a resurgence in the use of a more complex learning styles approach to instruction in which instructional activities are matched to the multiple facets of an individual's learning style. As many as 24 different

factors are assessed to determine which combination provides individual students with their optimal learning environment. A study of secondary level students with special needs, who were provided instruction through a learning styles approach, describes significant improvement in test scores and overall school achievement for the majority of participants. Other benefits included a decrease in the dropout rate, improved motivation, and better performance in regular education classes. [63]

The contributions of technology, including word processors, videodiscs, augmentative communication devices, and computer assisted instruction (CAI) programs, play a role in the implementation of integrated programs. The use of technology can support effective instruction and thus reduce performance differences between students with special needs and their nondisabled peers. [64] In addition, technology can benefit the teacher by reducing teacher time spent on drill and practice and by providing individualized instruction that allows for student development of independent work habits. [65]

The beliefs that regular and special education teachers and administrators have about the integration process directly influence the effectiveness of integration efforts at the school building level.

Finally, community-based instruction is necessary for students with intensive special needs if true integration is to become a reality. Many of the instructional strategies that are successful in integrating students with special needs into regular education settings, e.g., peer tutors, team teaching, the use of technology, volunteer and paraprofessional assistance, are needed to enable students to transition to community and work settings. For instance, peer tutors can be trained in job-related reading skills and participate in social skill role plays. A curriculum of this nature can assist teachers in focusing on the functional skills students need in order to be independent within the community. [66]

Professional Development

The beliefs that regular and special education teachers and administrators have about the integration process directly influence the effectiveness of integration efforts at the school building level. [67] Attitude is closely correlated to a teacher's receptivity to change. Promoting positive teacher attitudes toward integration is a fundamental consideration in planning an integrated program. Most often, attitudes about integration are shaped by professional and/or personal experiences and are not necessarily reflective of a teacher's understanding of the integration process. [68]

The reluctance of some teachers to participate in integrated activities may be due to a misperception that students will be integrated without special education consultation and services. Teachers may feel overburdened by existing responsibilities, lack confidence in their ability to work with diverse learners, or be unclear about the purpose of integration. [69] Regular education teachers appear most receptive to integration when provided with in-class support. [70] Indeed, studies demonstrate that regular classroom alternatives to traditional special education services are unlikely to succeed unless "additional protected resources" are provided as needed to the regular education teacher. [71]

Regular and special education teachers who share a common philosophy about student achievement and maintain high expectations for student performance experience greater success in integrated programs. [72] Teacher agreement about the role and purpose of education enables regular and special education teachers to develop together appropriately challenging goals for all students.

The preparation of regular and special education teachers to work with diverse learners is a significant consideration in the development of integrated programs. [73] Teachers with skill in classroom management, in the modification of instructional materials, and in the use of alternative instructional strategies are more willing and able to accommodate individual differences that students present. [74] Additionally, those teachers who build upon individual student strengths in developing an academic program for students with special needs foster improved performance. [75]

Innovations in curriculum and pedagogy, particularly those effective with heterogeneous groups of students, should form the foundation of the staff development program.

Regular education teachers need to understand the impact of specific disabilities on the learning process to be effective in modifying instruction. Conversely, special education teachers need to be familiar with regular education curriculum, instructional practice, and integration techniques so that they can provide direct instruction in skill areas deemed necessary for educational performance. Since each discipline serves as a resource to the other, the most practical method for developing these skills is through the professional collaboration of regular and special education teachers. [76]

The success of any integrated program is dependent on a common understanding of the principles and techniques that underlie effective integration practices. Consequently, extensive staff development should be provided throughout the development of integrated programs. Schools should enable personnel to develop the necessary skills to work with a diverse student population. Innovations in curriculum and pedagogy, particularly those effective with heterogeneous groups of students, should form the foundation of the staff development program. [77] In addition, emphasis must be placed on collaborative goal setting and decision making. The building support staff, e.g., cafeteria workers, custodians, secretaries, should have the opportunity to participate in staff development activities and receive the assistance needed to include all students. [78]

Initially, staff development efforts can require additional fiscal resources. However, over time, the implementation of integration activities and the improvement of staff skills may prove cost effective and will clearly benefit all students.

Student, Family, and Community Collaboration

The successful integration of students with special needs, whether those needs are mild, moderate, or intensive, is enhanced by the careful and thoughtful preparation of nondisabled peers and students with special needs participating in an integrated program. Additionally, it is essential that families understand and support the intent as well as the specific

program characteristics of an integrated program. Community support provides practical integration opportunities beyond the school day.

The quality of integrated programs is enhanced by family involvement in planning and implementation. Families of students with special needs and families of nondisabled students benefit from information about the goals of integration and the potential for change within programs once integration begins. Discussion of integration should be only one aspect of the total family involvement in the integration process. Family input in educational programming decisions provides school personnel with additional resources, promotes a sense of shared ownership, and reduces misunderstandings. [79]

An informative, ongoing disabilities awareness program, incorporated into existing curriculum, provides families, school staff, students, and the community the opportunity to gain an understanding of disabilities and to voice any misconceptions and/or concerns. [80] The incorporation of people with disabilities into the educational and larger community is helpful in the facilitation of disability awareness.

Finally, community and business involvement contribute to the success of integrated programming at both the school and work site setting. Clearly, integrated programs offer students with special needs the opportunity to develop competencies needed for success in the community. Additionally, school-business partnerships can demonstrate and publicize the contributions of people with disabilities in the workplace as well as the benefits of making adaptations at the work site. [81] Further, community and business people can share approaches and strategies, e.g., team building, collaborative planning, that are necessary dimensions in building integrated environments and provide mentors and support services to students with special needs.

Families of students with special needs and families of nondisabled students benefit from information about the goals of integration and the potential for change within programs once integration begins.

RECOMMENDATIONS FOR THE INTEGRATION OF ALL STUDENTS

> We can whenever, and wherever we choose, successfully teach all children whose schooling is of interest to us. We already know more than we need, in order to do this. Whether we do it must finally depend on how we feel about the fact that we haven't so far. [82]
>
> **Edmonds**

Nationally, school systems are seeking new organizational structures, staffing patterns, and methodologies to provide a richer and more accommodating educational environment for all students. The common element binding all of these efforts is the belief that public education can provide a better educational experience for all learners regardless of individual differences. As student diversity grows, all educators are compelled to develop effective instructional and behavioral techniques.

To accomplish this mission public education must build programs based on the abilities and talents of all the students enrolled in its schools.

To accomplish this mission public education must build programs based on the abilities and talents of all the students enrolled in its schools. This is the major challenge facing educators as we move toward the twenty-first century.

There are strong indications that specific school procedures, instructional practices, professional development activities, and family involvement support the implementation of quality integrated programs for all students. Four categories: school organization; curriculum, pedagogy, and the TEAM evaluation process; professional development; and student, family, and community collaboration are included in the following listing of recommendations that school personnel and families can use to create effective integrated programs.

Recommendations for School Organization

1. ***Promote school policies, organizational structures, and physical structures that are supportive of the integration of students of all abilities.***

   Examine school policies and structures to identify barriers to integration. Use the Teacher Support Team model or a teacher advisory group to identify school practices that will promote integration. Establish clear school policies and procedures related to discipline to provide consistency for all students. Develop a school schedule that maximizes opportunities for movement between regular and special education programs and that enables service providers to work within the regular classroom setting. Schedule common planning time for regular and special education teachers and related service providers for information sharing and mutual problem solving. Develop a building accessibility plan for each school.

2. ***Enable the administration and principals to employ integration strategies.***

   Elicit superintendent and school committee support for integration. Encourage the inclusion of integration in the district's mission statement. Provide fiscal and staff development resources that foster integration practices. Develop central office policies and practices that support principals engaged in integration activities. Encourage principals to facilitate the use of Teacher Support Teams in each school. Recognize principals who promote integration.

3. ***Provide for a variety of regular education support services.***

   Encourage support personnel to work collaboratively with classroom teachers. Enable teachers to have ready access to guidance counselors, reading specialists, school nurses, social workers, and other support personnel. Schedule Teacher Support Team meetings regularly to identify and coordinate the provision of needed regular education supports. Arrange, wherever possible, for

the provision of support services in the regular education environment.

4. ***Provide special education services in the regular education classroom.***

   Plan for integration when discussing and developing Individualized Educational Plans (IEPs) at all TEAM meetings, including reevaluations and annual reviews. Integrate special education teachers, physical therapists, occupational therapists, speech/language pathologists, and other specialists into the regular education classroom. Have the grade appropriate classroom teacher and special educator jointly develop the instructional and/or behavioral goals for student IEPs. Encourage the use of similar curriculum material in the provision of special education services. Encourage regular and special education teachers to collaborate in planning and teaching lessons to integrated groups of students.

Recommendations for Curriculum, Pedagogy, and the TEAM Evaluation Process

1. ***Discuss during TEAM meetings service delivery options that ensure placement of students with special needs in the least restrictive environment.***

   Consider the guiding questions in Appendix B to focus discussion and decision making during TEAM meetings. Consider all possible accommodations that will enable the students with special needs to participate in integrated activities. Identify in student IEPs specific integrated activities and timelines for initiating integration. Adopt flexible schedules for service providers so they retain the capacity to deliver services in the regular education setting. Identify the learning difficulty that limits the student's ability to participate in regular education. Implement activities and strategies to develop student skills that will foster fuller participation in regular education activities.

Implement activities and strategies to develop student skills that will foster fuller participation in regular education activities.

2. ***Identify desired student outcomes at the TEAM meeting and design student programs to ensure that identified outcomes are the focus of curriculum and instruction.***

   Identify desired student outcomes during the TEAM evaluation process. Develop goals and objectives for the IEP that work toward the achievement of identified outcomes. Use the IEP as a blueprint in developing curriculum and instruction as well as to inform daily instructional decisions. Evaluate routinely student achievement according to identified goals and objectives, making modifications and adjustments in student programs where appropriate.

Work with community agencies and/or businesses to create integrated opportunities outside of the school environment.

3. ***Incorporate a wide variety of instructional strategies effective with students of varied skill levels.***

   Examine regular education instructional practices to determine the availability of teaching approaches that accommodate learner differences. Modify where appropriate. Make learning activities meaningful and relevant to all learners. Foster the use of cooperative learning strategies, direct instruction, peer tutoring, experiential learning activities, developmentally based activities, graphic organizers, and technology to accommodate diverse learners. Use supplementary materials and learning aids to provide drill and practice for newly learned skills. Consult with other teachers and/or special educators in developing alternative teaching strategies.

4. ***Include curriculum approaches that accommodate differences in developmental levels and learning styles.***

   Examine the existing curriculum to identify curriculum demands and approaches that do not meet the needs of a diverse student population. Modify where appropriate. Review texts for readability, organization, and clarity of presentation. Encourage teachers to supplement instructional activities with strategies that provide for multisensory input and output. Include alternative assessment strategies. Incorporate a variety of activities that effectively measure student learning. Incorporate social skills training into the curriculum. Ensure that the special education curriculum is aligned with the regular education curriculum. Use curriculum based assessment to guide daily instructional decisions. Encourage teachers to use applied curricular activities with heterogeneous groups of students.

5. ***Ensure that regular and special education personnel provide direct instruction in those skill areas necessary to function effectively in school and within the community.***

   Provide direct instruction, prompt feedback, and ongoing practice in the skill areas and social behaviors necessary to function in regular education settings. Provide ongoing opportunities for participation in group activities within regular education. Identify and provide needed instructional activities that incorporate different learning strategies and foster independent work habits. Include social skills training activities, cooperative learning strategies, and peer tutoring programs as part of the curriculum. Use consistent materials and instructional practices, including curricular modifications and adaptations, in a variety of settings. Work with community agencies and/or businesses to create integrated opportunities outside of the school environment.

Recommendations for Professional Development

1. ***Encourage and enable all regular and special education teachers to develop a repertoire of technically sound strategies that accommodate the educational needs of diverse learners.***

   Support teachers who initiate new teaching strategies. Hire consultants with expertise in working with diverse learners in integrated settings. Enable teachers to attend conferences or workshops on innovative instructional approaches. Provide the necessary resources, e.g., class coverage, duty free time, access to model teachers, for teachers to master effective instructional strategies. Provide teachers implementing new classroom strategies opportunities for professional feedback. Promote peer coaching and/or collaboration as part of staff development activities. Establish a professional library that includes books and other resources on best practice. Arrange for teachers to visit model integrated programs.

2. ***Ensure that all teachers maintain high expectations for student performance and provide a range of curriculum adaptations for diverse learners.***

   Recruit teachers skilled in curriculum adaptations and modifications. Establish a curriculum committee to review and modify curriculum demands in order to accommodate learner diversity. Create a school climate in which teachers maintain high expectations for student performance, regardless of individual learning differences. Encourage teachers to use instructional strategies that meet the needs of diverse learners. Include activities that allow students to showcase their individual strengths. Enable teachers to visit classrooms where learner diversity is accommodated.

3. ***Encourage and support the process of collaboration as an important aspect of professional development.***

   Recruit teachers who support the integration of all students. Provide formal and informal structures for the exchange of ideas and strategies among professional staff. Encourage professionals to seek information, technical assistance, and support from their colleagues, families, and the community. Arrange for presentations pertinent to the delivery of integrated services by staff from various disciplines. Arrange for teachers who are skilled in the use of a broad range of instructional strategies to serve as mentors for their peers. Provide staff with information and resources on how to work collaboratively with families in developing appropriate educational options for their children.

Provide the necessary resources, e.g, class coverage, duty free time, access to model teachers, for teachers to master effective instructional strategies.

4. ***Provide ongoing professional development activities designed to increase regular and special education teacher capacity to work together in meeting the needs of diverse learners.***

Conduct staff development activities on integration and effective teaching strategies. Plan an inservice agenda that incorporates supervision and peer support. Make available experts in curriculum modification, alternative assessment procedures, classroom instruction, and the process of integration. Arrange for the participation of all school personnel in training activities. Bring in outside resources to provide professional development for the entire staff. Encourage participation in educational conferences and other professional development activities. Encourage the participation of parents in training activities pertinent to integration to facilitate dialogue between teaching staff and parents.

Recommendations for Student, Family, and Community Collaboration

1. ***Provide students opportunities that will foster or promote the skills necessary to interact with peers of all abilities.***

Plan programs and instructional strategies that help foster supportive peer relationships among students through such activities as cooperative learning, peer tutoring, peer buddy, and circle of friends.

Plan programs and instructional strategies that help foster supportive peer relationships among students through such activities as cooperative learning, peer tutoring, peer buddy, and circle of friends. Foster a cooperative rather than competitive classroom climate. Institute social skills training activities to provide students the opportunity to increase their understanding of interpersonal relationships and to practice needed skills. Reinforce positive peer relationships that develop. Model ways to recognize and support individual strengths and achievements.

2. ***Provide all students with disability awareness activities as part of the curriculum.***

Incorporate ongoing disability awareness activities that focus on recognizing and accepting students' strengths and differences into the existing curriculum. Provide opportunities for all students to share their interests and accomplishments with their peers. Recognize student respect and acceptance for individual differences. Include people with disabilities when they can contribute information and/or experiences to enhance the meaning of class content. Involve students and adults with disabilities in the design of existing curriculum activities to include disability awareness.

3. ***Involve families and community members in the planning and implementation of integrated programs.***

Enable families to be integrated into their children's school activities. Seek out parents and community members to serve on committees, advise clubs, and participate in field trips. Work with staff and

families to participate in developing collaborative working relationships. Create opportunities for families to participate in decision making related to program development. Consult families regarding adaptations in the classroom. Disseminate information to families and community members about the advantages of integrated programs. Encourage families and community members to visit integrated programs.

4. ***Provide families and community members with ongoing disability awareness activities.***

   Encourage families to attend integration conferences. Arrange programs that include both family and community members. Recognize community and volunteer organizations that support integration. Include integration articles in school publications. Develop and disseminate a school mission statement that cites integration as a school goal and identifies the advantages for students and community members who participate in integrated programs. Elicit business and community support in developing integrated opportunities outside of school for students with special needs.

Develop and disseminate a school mission statement that cites integration as a school goal and identifies the advantages for students and community members who participate in integrated programs.

The recommendations listed above provide specific techniques to school districts as they begin to implement integrated programs. It is important to note that school districts that developed successful integrated programs did not incorporate all of these recommendations prior to program development, but instead matched specific approaches to the unique needs of each school and staff. Appendix D examines in detail techniques to address each of the four categories. Following are examples of the kinds of integrated programs that are operating successfully across the state.

DESCRIPTIONS OF INTEGRATED PROGRAMS

School districts, on their own initiative and/or by obtaining resources through Department of Education grants, have developed integrated programs for preschool through high school aged students with special needs. A brief description of innovative integrated programs follows. This is not meant to be a comprehensive listing; it is written to provide the reader with applied examples of integration.

Plymouth-Carver Regional School District
Plymouth North High School

This regional high school provides a school-to-work transition program for 30 to 40 students with mild, moderate, and intensive special needs. Beginning in the ninth grade, students receive classroom instruction in the basic skills necessary to function within the workplace. Career education activities include setting appropriate goals, identifying

strengths and weaknesses, and participating in supervised community service.

At the age of 16, students are matched to part-time community jobs based on their skill level, experience, and need for direct supervision. While they continue to attend school, students work on job sites for part of the school day between one and four days a week. Job opportunities vary and include working in retail stores, restaurants, and hotels. Students are initially provided on-site job coaching by special education personnel who are gradually withdrawn as the students develop increased competency and independence in their work roles. Once supervision responsibilities have been assumed by the employers, the special education staff periodically monitors the progress of each student.

Ashfield-Plainfield Regional School District
Sanderson Academy (Elementary)
Buckland-Colrain-Shelburne Regional School District
Buckland-Shelburne Regional Elementary School
Colrain Central Elementary School
Hawlemont Regional School District
Hawlemont Regional Elementary School
Rowe Public Schools
Rowe Elementary School
Mohawk Trail Regional School District
Mohawk Trail Regional High School

Twenty-one students with intensive special needs have been fully integrated into regular education programs in five elementary schools. Each student is assigned a full-time paraprofessional. The program provided within the regular education setting is developed by the student's teacher of intensive special needs in collaboration with the classroom teacher. A half-time specialist in the integration of students with intensive special needs provides technical assistance to the special and regular education teachers, specialized service providers, e.g., occupational therapists, principals, and other school personnel in refining instructional and program options for each child. She also assists schools in their work with parents and in expanding integration opportunities within the community. Additionally, she offers inservice training on integration.

Twelve students with intensive special needs receive academic instruction in a home based special education program within the high school for half of each school day. For the remainder of the day, these students are integrated into regular education for instruction in related arts or placed on a job site within the school or community. Paraprofessionals are assigned on a full or part-time basis dependent on student need. The educational planning for each student is coordinated by a teacher of students with intensive special needs in collaboration with the receiving regular education teachers and/or job site supervisors. A half-time integration specialist provides ongoing technical assistance as well as inservice training in integration.

Randolph Public Schools
Donovan Elementary School

Stimulated by participation in a Department of Education grant promoting integration, a co-teaching integrated program between regular and special education was implemented in 1990. Seven students with intensive learning disabilities who had previously been placed in a substantially separate program were fully integrated into a fifth grade classroom.

The teachers, with the full support of the principal and the aid of consultants, completely revised the curriculum. They incorporated cooperative learning strategies, preventive discipline techniques, a social skills training component, and telecommunications into their daily classroom routine.

Based on the success of this program, four additional special classes within the school have initiated integrated activities using the co-teaching model. At the third grade level, a class with 32 regular education students has joined a special class of eight students with special needs for most of the school day. The teachers share responsibility for curriculum development, lesson planning, and classroom instruction.

This movement toward integration has also extended to the resource room program. Students are receiving more of their special education instruction within the regular classroom setting.

Salem Public Schools
Endicott Early Childhood Center
Federal Street School

Employing a multidisciplinary team approach, the Salem Public Schools has successfully integrated students with special needs into the regular education program at the preschool and kindergarten level. Two hundred fifteen children participate in 14 integrated classes, including a bilingual preschool class. Teams consisting of teachers, paraprofessionals, social workers, psychologists, and other related service providers offer needed services within the classroom setting and work closely with parents. Among the services available are consultation to teachers, individual counseling for students, and a parent drop-in center.

Each of these classes has a widely diverse student population yet maintains a high quality developmentally appropriate curriculum. Teachers expressed appreciation for the support offered by team members and noted that participation in this program has stimulated their professional development. They also noted improved parenting skills among the parents of students involved in the integrated program.

Haverhill Public Schools
Walnut Square Elementary Schools
Bartlett Elementary School
Tilton Elementary School
St. James Elementary School
Burnham Elementary School
Hunking Middle School

A recipient of a Department of Education restructuring grant, Haverhill has initiated integrated programs at the elementary and middle school levels employing a variety of strategies to support the movement of students with special needs into regular education programs. Three elementary schools have created instructional support teams comprised of the classroom, remedial reading, special education, and/or Chapter I teachers for the purpose of providing intensive and varied instruction in reading/language arts to students who ordinarily would be pulled out for specialized instruction. Each three member team collaboratively plans for and teaches in the regular classroom setting on a daily basis.

In one elementary school, a former substantially separate special class has been integrated fully into a regular education program through the creation of a co-teaching team comprised of the fourth grade teacher, a special educator, and a paraprofessional. Students who previously received services outside of the classroom are now accommodated through curricular and instructional modifications and a peer assistance program. In another school, integrated third grade classes combine with a bilingual third grade class for homeroom, reading, math, and special subject areas.

At the middle school level, students with special needs are integrated across four grade levels, receiving in-class support from special education teachers and/or paraprofessionals. Among the modifications implemented in curriculum and instruction are the use of cooperative learning strategies and a peer assistance program. Additional support is available through a before-school homework clinic, a penmanship clinic, and a learning center.

CONCLUSION

> The challenge then for both special and regular educators is to extend to the school, efforts already begun at the classroom level in the context of mainstreaming to diminish the separateness of regular and special education programming and to share in the increasing knowledge base about what constitutes effective instruction.[13]
>
> **Bickel and Bickel**

The concept of integration embraces all students in a school community as learning together. Integration emphasizes the interconnection and mutual dependence of all learners, creating opportunities for improved and enhanced school performance, friendship, and ultimately, successful out-of-school lives. Integration is a dynamic rather than static progress. No simple checklist or definition can capture the spirit or commitment to all children and youth inherent in this concept. Several common characteristics emerge from the many integrated programs that exist in Massachusetts and in other states. These traits, listed as recommendations in this document, point to the need for schools and communities to develop inclusive schools where all community members participate fully and are valued by all.

Integration must be seen as a process through which children and youth with special needs can develop the skills, attitudes, and experience to be fully enfranchised members of society.

Some communities are restructuring their schools for the inclusion of all students. It is in the spirit of improving learning and school experiences for all that schools support integrated programs. Integrated schools offer much to their local communities. All participants benefit. Students' learning improves, friendships develop, and functional and practical skills are learned. Practitioners are challenged to improve curriculum and instruction, to learn from peers, and to teach in teams in collaborative ways.

The Department of Education is committed to the integration of students with special needs. This commitment is based on the belief that students with special needs can participate successfully within the regular education environment. It is also predicated on the belief that the goals of special education legislation will be realized only when students with special needs become fully participating members of the school community.

Integration can no longer be seen as the ultimate goal for only those children and youth deemed ready to participate in regular education programs. Rather, integration must be seen as a process through which children and youth with special needs can develop the skills, attitudes, and experience to be fully enfranchised members of society.

APPENDIX A

STATUTORY AND REGULATORY DEFINITIONS

The federal special education legislation, reauthorized and renamed in 1990 the Individuals with Disabilities Education Act, delineates the concept of the Least Restrictive Environment in statute, as follows:

> to the maximum extent appropriate, handicapped children, including children in public and private institutions or otner care facilities, are educated with children who are not handicapped, and that special classes, separate schooling or other removal of handicapped children from the regular educational environment occurs only when the nature or severity of the handicap is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily.

Chapter 71B, Massachusetts' special education law, references the Least Restrictive Environment as follows:

> Section two states, in part:
> ...and to assure the maximum possible development of a child with special needs in the least restrictive environment.
>
> Section three states, in part:
> If the evaluation of the special education program shows that said program does not benefit the child to the maximum extent feasible in the least restrictive environment, then such child shall be reassigned.

The Chapter 766 Regulations were revised in 1991 and contain new definitions, many of which closely reflect federal language. Regulations pertaining to the least restrictive environment include:

¶118.0 Least Restrictive Environment

> The program and placement which ensures that, to the maximum extent appropriate, a child in need of special education, including children in public or private institutions or other care facilities, is educated with children who are not in need of special education and that special classes, separate schooling or other removal of a child in need of special education from the regular education environment occurs only when the nature or severity of the special needs is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily.

¶ 322 provides direction to the TEAM on ensuring that LRE is considered when specifying all IEP elements as indicated below:

¶ 322.0 ... Unless the children's IEP requires some other arrangement, the child shall be educated in the school which he or she would attend if the child did not require special education.

¶ 322.22 (b) The prototype and program selected shall be consistent with ¶500.00. In selecting the least restrictive environment, consideration must be given to any potential harmful effect on the child or on the quality of services which s/he needs.

¶ 322.22(c) If a 502.4, 502.4 (i), 502.5 or 502 6 prototype is designated, the TEAM shall state the basis for its conclusion that education of the child in a less restrictive environment with the use of supplementary aids and services could not be achieved satisfactorily (¶ 500.00).

¶ 322.22(d) The determination shall ensure that the child's placement is as close as possible to the child's home.

¶ 322.22(h) The TEAM shall not recommend a day or residential school program outside of the city, town or school district in which the child resides unless there is no suitable program within the city, town or school district.

APPENDIX B

GUIDING QUESTIONS FOR THE TEAM EVALUATION PROCESS

As evaluation TEAMs design Individualized Educational Plans (IEPs) for students with special needs, the planning process should include discussion and planning for integration. The planning process may be guided by answers to questions such as the following:

1. What supplemental aids, services, and/or accommodations have been considered to meet the student's needs within the regular education classroom?

2. Has the TEAM considered support services for the student, class, teacher, and other service providers in order to implement the student's IEP?

3. Are compatible instructional approaches used by the regular and special education teachers working with the student?

4. How will the instructional approaches and curriculum used within the regular education program be adapted to meet the student's needs?

5. Does the IEP ensure that services provided to the student are coordinated?

6. Does the IEP service delivery grid include scheduled meeting time for teachers, therapists, aides, and/or consultants to share information about the student, discuss progress, and modify instruction as needed?

7. What specific integrated activities can the student participate in?

8. What strategies or structures will enable and/or support student participation in integrated activities?

9. What plans have been made to increase integration and/or to prevent increasing the amount of time the student is separated from his/her nondisabled peers?

10. Does the IEP address adequately the student's independent living goals and needs?

APPENDIX C

STRATEGY IDEAS FOR SUPPORTING STUDENTS IN REGULAR CLASSES

1. CONSULTATION— The process that occurs when teams of educators (and support staff) who have diverse expertise work together deliberately and creatively to plan successful programs for children.

2. TEAM TEACHING— Two or more teachers, who sometimes have different areas of expertise (e.g., special education and general education), cooperatively teaching a class or unit.

3. CURRICULUM ADAPTIONS— Changes made in the general classroom curriculum that allow each child to actively participate at his or her own level and meet his or her individual goals. For example, the goal of a science project for a student with intellectual disabilities may be to stimulate and enhance language development while the goal for nondisabled students is to learn a scientific principle. Other examples might be: offering materials on the same topic at a different reading level than that for the majority of the class or having one child using Cuisinnaire rods for sorting and learning colors while other children are using them for learning math concepts.

4. ENVIRONMENTAL ACCOMMODATIONS— Changes that are made to adapt the learning environment of the classroom so that each child can participate successfully. Examples might be: seating a child with hearing problems in the front of the room, allowing a child with a learning disability to take a tape-recorded version of a test rather than the written version, providing an adapted chair and desk for a child with physical needs, using an auditory trainer for a child with hearing problems, using communication boards for children who do not speak, etc.

5. COOPERATIVE LEARNING— A non-competitive teaching strategy in which children are divided into small groups for learning activities which have cooperative goals. Each child has a clearly defined role, and each role is equally valued. For example, one child might be the reader for the group, another might be the recorder, an additional student might carry materials on the tray of her wheelchair, and another might be the group leader. To complete the group's task successfully, all members of the group must participate.

6. PEER RELATIONSHIP SUPPORT— Providing opportunities and the support that children may need to be able to initiate and maintain relationships with each other. The "Circle of Friends" is a formal process, developed by Dr. Marsha Forest, in which peer support circles are organized. There are also many informal ways to provide opportunities, encouragement, and support for relationships.

7. RELATED SERVICE CONSULTATION IN REGULAR CLASSES— Integrating related service provision (speech, physical therapy, occupational therapy, etc.) into the regular classroom. This can be a more functional and therefore beneficial means of meeting a child's needs for related services while maximizing the child's participation in regular education.

8. M.A.P.S. : AN ACTION PLANNING SYSTEM— A planning process, developed by Dr. Marsha Forest and Judith Snow of Canada, in which people who know a particular child very well meet to develop an integrated school day for the child. The group focuses on who the child is, his or her strengths and capabilities and the parents' hopes and dreams for their child. The child's peers are actively involved in the planning as well.

9. BEHAVIOR SUPPORT PLANS— Anticipating that some children may need behavioral supports in order to participate in regular classes, and then obtaining appropriate resources. Plans to address particular needs are often developed by the child's team (the parents, regular and special educators involved with the student) with input from a behavior consultant.

10. INTEGRATION FACILITATOR (also called Support Facilitator) — A person who may have a variety of responsibilities to design, implement, and/or coordinate supports necessary for integration to occur successfully. The facilitator keeps a focus on pro-active problem-solving, often functions as a liaison between home and school, and creates ways to link a student with his/her peers. Finally, the facilitator taps into the individual capacities of the learner and the resources of the support team to include and involve the students in the school community.

11. ACCEPTED VARIED LEARNING GOALS— "When appropriately organized, regular education classes can provide a wide variety of appropriate learning opportunities and challenges for students with a wide range of learning needs, interests, and capabilities. Students with diverse abilities can participate in meaningful ways in age-appropriate regular classes. For instance, during a map reading activity, one student may be called upon to discuss the economic system of the country, another may be requested to identify a color, while another may simply be

requested to grasp and hold a corner of the map." Taken from "Educating Students with Severe Disabilities", by Susan & William Stainback, Teaching Exceptional Children, Fall, 1988.

12. COLLABORATIVE TEAMING— Parents, school staff, students and others working together to plan an individual student's support needs. In addition to planning, the team assumes responsibility cooperatively for instruction, making accommodations or adaptations, and evaluation of the student's progress. With a collaborative team, each person's unique skills and interests are tapped to assist in the process of supporting the child and the teachers in successfully supporting him/her.

13. HETEROGENEOUS GROUPS FOR INSTRUCTION— Using teaching methods to instruct students with diverse levels of ability together (i.e., cooperative learning, whole language approach, experiential learning, etc.).

© 1988, 1991, PEAK Parent Center Integration Project,
6055 Lehman Drive, Suite 101, Colorado Springs, CO 80918

Other strategy ideas to consider include:

14. AIDES/ASSISTANTS— Using additional supports in the classroom such as aides and assistants enables not only students with disabilities to be integrated but has the added advantage of offering additional assistance to all the students in the classroom.

15. ADAPTED MATERIALS, EQUIPMENT, ASSISTIVE TECHNOLOGY— Using supports in the classroom such as adapted materials, equipment, and assistive technology provides students with disabilities needed tools to function effectively with their nondisabled peers.

APPENDIX D

TECHNIQUES TO ADDRESS SCHOOL ORGANIZATION FACTORS

	Strategy 1	Strategy 2	Strategy 3	Strategy 4	Strategy 5
Develop School Policies and Structures that Support Integration	Organize the school schedule to maximize movement between regular and special education programs.	Research policies and practices that limit integration opportunities; include recommendations for overcoming identified barriers, e.g., architectural barriers.	Create a systemwide integration plan with a mission statement, goals for integration, and timelines for implementation.	Recognize innovative integration practices at the classroom and school building level.	Elicit school committee and parent support and endorsement for integration.
Enable Principals and Administration to Support Integration	Provide training in integration to principals and central office staff.	Support administrative initiatives in facilitating integration; encourage visits to model programs.	Provide resources, e.g., money for consultation and instructional materials, to principals initiating integrated activities.	Charge an administrative task force with assessing system policies and practices to identify needed changes that will support integration.	Ensure principals develop and facilitate the implementation of Teacher Support Teams.
Provide Regular Education Support Services	Where available, provide Chapter I services and reading specialists within regular education classrooms.	Arrange regular meetings between teachers and support personnel for collaboration on classroom modifications.	Use Teacher Support Teams to coordinate the provision of support services.	Consider using support personnel to co-teach social skills training in regular education classrooms.	Include support personnel in a faculty advisory group on integration strategies.
Provide Special Education Services in Regular Education Classrooms	Identify integrated service delivery in the IEP.	Encourage special educators to co-teach in regular education classrooms.	Schedule support services, e.g., physical therapy, in regular education classrooms.	Identify assistive devices and other instructional aids to facilitate integration.	Provide sufficiently varied activities to accommodate student diversity.

TECHNIQUES TO IMPROVE CURRICULUM, PEDAGOGY, AND THE TEAM EVALUATION PROCESS

	Strategy 1	Strategy 2	Strategy 3	Strategy 4	Strategy 5
Focus TEAM Meeting Discussion on LRE	Use a list of guiding questions focused on LRE to structure discussion of program options and recommendations at TEAM meetings.	Require all professionals to consider strategies for providing needed services within the regular classroom environment as part of the assessment process.	Identify integration strategies on the IEP, including community integration where appropriate.	Identify specific activities, e.g., cooperative learning, that will enhance the student's ability to participate in integrated activities.	Establish definite timelines in the IEP for starting the integration process.
Include Variety of Instructional Approaches	Include instructional activities that offer students multisensory input and output.	Use experiential/hands on activities that promote student motivation and involvement in the learning process.	Use cooperative learning structures to facilitate group activities and/or instruction.	Establish peer tutoring or buddy system programs to provide additional support to students.	Use results of curriculum based assessment to guide daily instructional decisions and to provide specific feedback on student performance.
Use Curriculum That Accommodates Student Differences	Encourage the use of a developmentally based curriculum (pre K- 3) in the primary grades.	Include experiential, functional, and applied curriculum activities, e.g., building structures out of blocks, running a staff lunch program, on-site job training.	Identify a variety of learning activities and instructional materials to accommodate different skill levels.	Include curriculum goals that promote student responsibility and independence in the learning process.	Include alternative assessment strategies, e.g., work samples, to measure student learning on a routine basis.
Use Direct Instruction in Skills Necessary for Independent Functioning	Include instructional activities designed to enhance group work skills.	Incorporate social skills training program into the daily curriculum.	Foster independent learning and work habits.	Consult with the grade appropriate classroom teacher in developing goals related to needed skill development.	Use consistent materials and instructional practices in a variety of settings.

TECHNIQUES TO ADDRESS THE PROFESSIONAL DEVELOPMENT OF REGULAR AND SPECIAL EDUCATORS

	Strategy 1	Strategy 2	Strategy 3	Strategy 4	Strategy 5
Develop Repertoire of Sound Instructional Skills	Include topics pertinent to integration, e.g., cooperative learning, remediation techniques, behavior management, learning styles, into inservice training programs.	Identify staff to provide technical assistance to classroom teachers working with students with special needs.	Purchase and make accessible books and journals that offer information on curriculum and instruction that support integration.	Encourage staff to attend workshops and conferences that relate to integration. Arrange with institutions of higher education to provide course credit.	Encourage teachers to try innovative teaching strategies.
Curriculum Adaptations and High Expectations	Maintain and communicate high expectations for student performance.	Access assistive technology to support students in integrated settings.	Create reading/study guides, graphic organizers, and other support materials to promote student mastery of content.	Include academic tasks that promote higher level thinking/problem solving skills.	Incorporate functional and applied curriculum activities where appropriate.
Encourage/Support Professional Collaboration	Create a faculty advisory group charged with devising strategies for increasing professional collaboration.	Schedule common planning time and/or time for teacher consultation.	Encourage/foster teacher collaboration in curriculum development, professional development, and team teaching.	Have available professional books and journals relevant to teacher consultation and collaboration.	Provide technical assistance in consultation and collaboration.
Institute Ongoing Professional Development Activities	Train school personnel in the implementation of Teacher Support Teams.	Arrange for teachers/staff to observe integration models within/outside districts.	Include peer coaching and professional collaboration and consultation as part of an inservice training program.	Create a library that is easily accessible to all school personnel.	Send staff member(s) to workshops/conferences and have those who attend present information at faculty meetings.

TECHNIQUES TO INCREASE STUDENT, FAMILY, AND COMMUNITY COLLABORATION

	Strategy 1	Strategy 2	Strategy 3	Strategy 4	Strategy 5
Develop Student Capacity to Interact with Students of All Abilities	Integrate social skills training into the curriculum.	Develop peer tutoring, buddy systems, etc. to provide extra support to students.	Identify after school activities, e.g., sports, clubs, that students can participate in.	Identify community activities, e.g., scouting, that students can participate in.	Incorporate an ongoing and inclusive planning process that engages the student, family, teachers, peers, and the community in developing integration plans.
Include Disability Awareness Activities in Curriculum	Make available books and media that include people with disabilities.	Include people with disabilities, e.g., guest lecturers, in school programs. Invite former students to participate.	Ensure that pictures of famous people include people with disabilities.	Include disability awareness activities in art, social studies, reading, and math.	Have students with and without disabilities talk about their experiences with each other.
Include Families in Planning and Implementing Integrated Activities	Conduct workshops on integration for parents.	Have parents visit model integrated programs.	Use parents as resources and/or advocates for integration and program development.	Work with families in lobbying for policies and resources that support integration.	Invite parents to speak to administrators, school committees, and parent/teacher organizations about integration.
Provide Disability Awareness Activities for Family and Community	Conduct disability awareness activities for parent groups, e.g., PTOs, PTAs.	Invite people with disabilities to school programs.	Recognize community, business, and volunteer organizations that support integration.	Provide business and civic organizations with disability awareness activities.	Highlight in school publications school/ business partnerships that integrate people with disabilities.

ENDNOTES

1. Steven J. Taylor, et al. Purposeful Integration...Inherently Equal (Boston: Technical Assistance for Parent Programs, 1987), 11.

2. Madeline Will, "Educating Children with Learning Problems: A Shared Responsibility," Exceptional Children 52 (February 1986): 411-415; William Stainback, Susan Stainback, and Gary Burch, "A Rationale for the Merger of Regular and Special Education," in Educating All Students in the Mainstream of Regular Education (Baltimore: Paul H. Brookes Publishing Co., 1989), 16.

3. Massachusetts Department of Education, Individual School Report, October 1, 1989; Massachusetts Department of Education, School System Summary Report, October 1, 1989.

4. Congressional Record, 121 Congressional Record, H. 7764.

5. Pennsylvania Association for Retarded Children v. the Commonwealth of Pennsylvania, 334 F. Supp. 1257 (E.D. Pa., 1971).

6. Mills v. Board of Education of the District of Columbia, 348 F. Supp. 866 (D.D.C. 1972).

7. Alan Gartner and Dorothy Lipsky, "Beyond Special Education: Toward a Quality System For All Students," Harvard Educational Review 57 (November 1987): 389.

8. Michael Berres and Peter Knoblock, "Lessons from Integrated Education," in Program Models for Mainstreaming: Integrating Students with Moderate to Severe Disabilities (Rockville: Aspen, 1987), 300.

9. G. Thomas Bellamy, et al., "Strategies for Vocational Preparation" in Design of High School Programs for Severely Handicapped Students (Baltimore: Brookes, 1982), 139-152; Andrea P. McDonnell and Michael L. Hardman, "The Desegregation of America's Special Schools: Strategies for Change," Journal of The Association for Persons with Severe Handicaps 14 (Spring 1989): 68-74.

10. Ibid; David L. Westling,"Leadership for Education of the Mentally Handicapped," Educational Leadership 46 (March 1989): 19-23; Craig R. Fiedler and Richard L. Simpson, "Modifying the Attitudes of Nonhandicapped High School Students Toward Handicapped Peers," Exceptional Children 53 (January 1987): 342-349.

11. Margaret C. Wang and Maynard C. Reynolds, "Avoiding the 'Catch 22' in Special Education Reform," Exceptional Children 51 (April 1985): 497- 502; George G. Bear and Willis A. Proctor, "Impact of a Full-Time Integration Program on the Achievement of

Nonhandicapped and Mildly Handicapped Children," Exceptionality 1, no. 4 (1990): 227-238.

12. Robert E. Slavin, "Ability Grouping and Student Achievement in Elementary Schools: A Best-Evidence Synthesis," Review of Educational Research 57 (Fall 1987): 293-366; Donald J. Veldman and Julie P. Sanford, "The Influence of Class Ability Level on Student Achievement and Classroom Behavior," American Educational Research Journal 21 (Fall 1984): 629-644; Terrill M. Beckerman and Thomas L. Good, "The Classroom Ratio of High-and Low-Aptitude Students and Its Effect on Achievement," American Educational Research Journal 18 (Fall 1981): 317-327.

13. Bear and Proctor, 227-238.

14. David W. Johnson, Roger T. Johnson, and Edythe J. Holubec, Circles of Learning: Cooperation in the Classroom, rev. ed. (Edina: Interaction Book Company, 1986), 6-10; Glenn A. Vergason and M. L. Anderegg, "Beyond the Regular Education Initiative and the Resource Room Controversy," Focus on Exceptional Children 23 (March 1991): 1-7.

15. Rita McWilliams, "Special Education: Return to the Mainstream," Governing 5 (December 1991): 40-43; Susan B. Stainback, William C. Stainback, and Catherine W. Hatcher, "Nonhandicapped Peer Involvement in the Education of Severely Handicapped Students," Journal of The Association for the Severely Handicapped 8 (Spring 1983): 39-41; Luanna M. Voeltz, "Effects of Structured Interactions With Severely Handicapped Peers on Childrens Attitudes," American Journal of Mental Deficiency 86, no. 4 (1982): 380-390.

16. Sheila Lowenbraun, Sally Madge, and James Affleck, "Parental Satisfaction with Integrated Class Placements of Special Education and General Education Students," Remedial and Special Education 11 (July/August 1990): 37-40.

17. Bear and Proctor, 227-238.

18. Joel Meyers, Lynn M. Gelzheiser, and Glenn Yelich, "Do Pull-In Programs Foster Teacher Collaboration?" Remedial and Special Education 12 (March/April 1991): 7-15.

19. Michael P. Brady, Dennis McDougall, and H. Floyd Dennis, "The Schools, the Courts, and the Integration of Students with Severe Handicaps," Journal of Special Education 23 (Spring 1989): 55; Voeltz, 380-390.

20. Clare Roberts, Chris Pratt, and David Leach, "Classroom and Playground Interaction of Students With and Without Disabilities," Exceptional Children 57 (December/January 1991): 212-224; Brady,

McDougall, and Dennis, 43-58; Stainback, Stainback, and Hatcher, 39-41; Vergason and Anderegg, 1-7.

21. Jennifer York, et al., "Feedback About Integrating Middle-School Students with Severe Disabilities in General Education Classes," Exceptional Children 58 (December/January 1992): 244- 258; McDonnell and Hardman, 68-74.

22. Richard P. Brinker and Margaret E. Thorpe, "Integration of Severely Handicapped Students and the Proportion of IEP Objectives Achieved," Exceptional Children 51 (October 1984): 168-174.

23. York, et al., 244-258; McDonnell and Hardman, 68-74.

24. Bellamy, et al., 139-153; McDonnell and Hardman, 68-74.

25. Susan K. Sherwood, "A Circle of Friends in a 1st Grade Classroom," Educational Leadership 48 (November 1990): 41; Richard P. Brinker and Margaret E. Thorpe, "Features of Integrated Educational Ecologies that Predict Social Behavior Among Severely Retarded and Nonretarded Students," American Journal of Mental Deficiency 91, no. 2 (1986): 150-159; William Stainback, Susan Stainback, and Amy Wilkinson, "Encouraging Peer Supports and Friendships," Teaching Exceptional Children 24 (Winter 1992): 6-11; Gregg Chinn-Perez, et al., "Maximizing Social Contact for Secondary Students with Severe Handicaps," Journal of The Association for Persons with Severe Handicaps 11 (Summer 1986): 118-124.

26. McDonnell and Hardman, 68-74; Lou Brown, et al., "Opportunities Available When Severely Handicapped Students Attend Chronological Age Appropriate Regular Schools," Journal of The Association for the Severely Handicapped 8 (Spring 1983): 16-23.

27. James Affleck, et al., "Integrated Classroom Versus Resource Model: Academic Viability and Effectiveness," Exceptional Children 54 (January 1988): 339-348.

28. U. S. Department of Education, Office of Special Education and Rehabilitative Services, Seventh Annual Report to Congress on the Implementation of P.L. 94-142: The Education for All Handicapped Children's Act of 1975 (Washington, D.C., 1985), 89; U.S. Department of Education, Office of Special Education and Rehabilitative Services, Eleventh Annual Report to Congress on the Implementation of P.L. 94-142: The Education for All Handicapped Children's Act of 1975 (Washington, D. C., 1989), 129.

29. W. E. Fink, Evaluation of the Rural Model Program for Severely Handicapped Students, Program for Mental Retardation and Developmental Disabilities (Salem, OR, 1979).

30. Joseph Jenkins, Constance G. Pious, and Mark Jewell, "Special Education and the Regular Education Initiative: Basic Assumptions," Exceptional Children 56 (April 1990): 479-491.

31. Bear and Proctor, 227-238; Lowenbraun, Madge, and Affleck, 37-40; Massachusetts Department of Education, Exit Facts: A Report on Students Who Left Special Education in School Year 1988-90, 2nd ed. (Quincy: The Division of Special Education, 1990): 1-6; Deborah K. Walker, et al., "Who Leaves and Who Stays in Special Education: A 2-Year Follow-up Study," Exceptional Children 54 (February 1988): 393-402; Wang and Reynolds, 497-502.

32. Massachusetts Department of Education, "Exit Facts," 1-6.

33. Walker, et al., 393-402.

34. Wang and Reynolds, 497-502.

35. McDonnell and Hardman, 68-74; Lou Brown, et al., "Opportunities Regular Schools," 16-24.

36. Lou Brown, et al., "The Home School: Why Students with Severe Intellectual Disabilities Must Attend the Schools of their Brothers, Sisters, Friends, and Neighbors," Journal of The Association for Persons with Severe Handicaps 14 (Spring 1989): 1-7; Lou Brown, et al., "The Critical Need for Nonschool Instruction in Educational Programs for Severely Handicapped Students," Journal of The Association for Persons with Severe Handicaps 8 (Fall 1983): 71-77; Brady, McDougall, and Dennis, 43-58.

37. Margaret C. Wang, Maynard C. Reynolds, and Herbert J. Walberg, "Integrating the Children of the Second System," Phi Delta Kappan 70 (November 1988): 249.

38. Charles R. Greenwood, "Longitudinal Analysis of Time, Engagement, and Achievement in At-Risk Versus Non-Risk Students," Exceptional Children 57 (May 1991): 521-535; Herbert Walberg, "Synthesis of Research on Time and Learning," Educational Leadership 45 (March 1988): 76-85; H. Lyndall Rich and Steven M. Ross, "Student's Time on Learning Tasks in Special Education," Exceptional Children 55 (April 1989): 508-515.

39. Joseph R. Jenkins, Constance G. Pious, and David L. Peterson, "Categorical Programs for Remedial and Handicapped Students: Issues of Validity," Exceptional Children 55 (October 1988): 147-158.

40. Andrew C. Porter and Jere Brophy, "Synthesis of Research on Good Teaching: Insights from the Work of the Institute for Research on Teaching," Educational Leadership 45 (May 1988): 74-85; Westling,

19-23; Bear and Proctor, 227-238; McDonnell and Hardman, 68-74.

41. Melvyn I. Semmel, et al., "Teacher Perceptions of the Regular Education Initiative," Exceptional Children 58 (September 1991): 9-24; Joseph R. Jenkins and Amy Heinen, "Students' Preferences for Service Delivery: Pull-Out, In-Class, or Integrated Models," Exceptional Children 55 (April 1989): 516-523; Janice M. Baker and Naomi Zigmond, "Are Regular Education Classes Equipped to Accommodate Students with Learning Disabilities?" Exceptional Children 56 (April 1990): 515-526.

42. Bob Algozzine and Larry Maheady, "When All Else Fails, Teach!" Exceptional Children 52 (April 1986): 487-488.

43. McDonnell and Hardman, 68-74; Adrienne Garver-Pinhas and Liora P. Schmelkin, "Administrators' and Teachers' Attitudes Toward Mainstreaming," Remedial and Special Education 10 (July/August 1989): 38-43; Adrienne Garver and Liora Pedhazur Schmelkin, "A Multidimensional Scaling Study of Administrators' and Teachers' Perceptions of Disabilities," Journal of Special Education 22 (Winter 1989): 463-478.

44. Libby Goodman, "The Effective Schools Movement and Special Education," Teaching Exceptional Children 17 (Winter 1985): 102-105.

45. Westling, 19-23; Jennifer York and Terri Vandercook, "Strategies for Achieving An Integrated Education for Middle School Students with Severe Disabilities," Remedial and Special Education 11 (September/October 1990): 6-16.

46. Robert Evans, " Making Mainstreaming Work Through Prereferral Consultation," Educational Leadership 48 (September 1990): 73-77; Lawrence J. Johnson and Marleen C. Pugach, "Peer Collaboration: Accommodating Students with Mild Learning and Behavior Problems," Exceptional Children 57 (March/April 1991): 454-461; Westling, 19-23.

47. Margaret C. Wang, Eva D. Vaughan, and Joan A. Dytman, "Staff Development: A Key Ingredient of Effective Mainstreaming," Teaching Exceptional Children 17 (Winter 1985): 113-121; James M. Kauffman, John Wills Lloyd, and Kathleen A. McGee, "Adaptive and Maladaptive Behavior: Teachers' Attitudes and Their Technical Assistance Needs," Journal of Special Education 23 (Summer 1989): 185-200; N. Jo Campbell, Judith E. Dobson, and Jane M. Bost, "Educator Perceptions of Behavior Problems of Mainstreamed Students," Exceptional Children 51(January 1985): 298-303; Gary N. Siperstein and Melinda J. Goding, "Teachers' Behavior Toward LD and Non-LD Children: A Strategy for Change," Journal of Learning Disabilities, 18 (March 1985): 139-144; Patricia A. Gallagher, "Inservice! A Mandated Special Education Course and

Its Effects on Regular Classroom Teachers," Teacher Education and Special Education 8 (Spring 1985): 59-65; Christy H. Riffle, "Factors Influencing Regular Classroom Teachers' Referral Practices," Teacher Education and Special Education 8 (Spring 1985): 66-74; Barbara L. Tymitz-Wolf, "Extending the Scope of Inservice Training for Mainstreaming Effectiveness," Teacher Education and Special Education 5 (Spring 1982): 17-23.

48. Phillipa H. Campbell, "The Integrated Programming Team: An Approach for Coordinating Professionals of Various Disciplines in Programs for Students with Severe and Multiple Handicaps," Journal of The Association for Persons with Severe Handicaps 12 (Summer 1987): 107-116; Carolyn J. Golightly, "Transdisciplinary Training: A Step Forward in Special Education Teacher Preparation," Teacher Education and Special Education 10 (Summer 1987): 126-130; Westling, 19-23.

49. Herticina Self, et al., "Cooperative Teaching Project: A Model for Students at Risk," Exceptional Children 58 (September 1991): 26-33; Johnson and Pugach, 454-461; Allan A. Glatthorn, "Cooperative Professional Development: Peer-Centered Options for Teacher Growth," Educational Leadership 45 (November 1987): 31-35.

50. Stephen W. Smith, "Individualized Education Programs (IEPs) in Special Education - From Intent to Acquiescence," Exceptional Children 57 (September 1990): 6-14; Brinker and Thorpe, "Integration and IEP Objectives," 168-174; Naomi Zigmond and Susan E. Miller, "Assessment for Instructional Planning," Exceptional Children 52 (1986): 501-509.

51. Kathleen A. Fitzpatrick, "Restructuring to Achieve Outcomes of Significance for all Students," Educational Leadership 48 (May 1991): 18-22; William G. Spady and Kit J. Marshall, "Beyond Traditional Outcome-Based Education," Educational Leadership 49 (October 1991): 67-72; Jean A. King and Karne M. Evans, "Can We Achieve Outcome-Based Education?" Educational Leadership 49 (October 1991): 73-75; Pam Hunt, Lori Goetz, and Jacki Anderson, "The Quality of IEP Objectives Associated with Placement on Integrated Versus Segregated School Sites," Journal of The Association for Persons with Severe Handicaps 11 (Summer 1986): 125-130.

52. Robert E. Slavin and Nancy A. Madden, "What Works for Students at Risk: A Research Synthesis," Educational Leadership 46 (February 1989): 4-13; Kenneth Bell, et al., "Facilitating Mainstreaming of Students with Behavioral Disorders Using Classwide Peer Tutoring," School Psychology Review 19, no. 4 (1990): 564-573; Jomills H. Braddock and James M. McPartland, "Alternatives to Tracking," Educational Leadership 47 (April 1990): 76-79; Vergason and Anderegg, 1-7; Nancy K. Glomb and Daniel P. Morgan, "Resource Room Teachers' Use of Strategies That Promote the Success of Handicapped Students in Regular Classrooms," Journal of Special Education 25 (Summer 1991):

221-235; Dorothy S. Strickland, "How Young Children Learn to Read and Write," Educational Leadership 47 (March 1990): 18-23; Henry Barnes, "Learning that Grows with the Learner: An Introduction to Waldorf Education," Educational Leadership 49 (October 1991): 52-54; David Mollet, "How the Waldorf Approach Changed a Difficult Class," Educational Leadership 49 (October 1991): 55-56; Mark Wolery, "Instruction in Early Childhood Special Education: Seeing Through a Glass Darkly...Knowing in Part," Exceptional Children 58 (October/ November 1991): 127-135.

53. Diane K. Augustine, Kristen D. Gruber, and Lynda R. Hanson, "Cooperation Works," Educational Leadership 47 (December 1989/January 1990): 4-7; Ron Brandt, "On Cooperative Learning: A Conversation with Spencer Kagan," Educational Leadership 47 (December 1989/January 1990): 8-11; Robert E. Slavin, "Cooperative Learning and the Cooperative School," Educational Leadership 45 (November 1987): 7-13; Yael Sharan and Shlomo Sharan, "Training Teachers for Cooperative Learning," Educational Leadership 45 (November 1987): 20-23; Neil Davidson and Pat W. O'Leary, "How Cooperative Learning Can Enhance Mastery Learning," Educational Leadership 47 (February 1990): 30-34; Ronald Brandt, "On Student Needs and Team Learning: A Conversation with William Glasser," Educational Leadership 45 (March 1988): 38-45; Wayne Sailor, William C. Wilson, and Martin Gerry, "Policy Implications of Emergent Full Inclusion Models for the Education of Students with Severe Disabilities" in Handbook of Special Education: Research and Practice Vol 4 (Oxford: Pergamon Press, 1991) 175-193.

54. Ibid; Larry Maheady, M. Katherine Sacca, and Gregory F. Harper, "Classwide Peer Tutoring with Mildly Handicapped High School Students," Exceptional Children 55 (September 1988): 52-59; Joe Delquadri, et al., "Classwide Peer Tutoring," Exceptional Children 52 (April 1986): 535-542; William D. Eiserman, "Three Types of Peer Tutoring: Effects on the Attitudes of Students with Learning Disabilities and Their Regular Class Peers," Journal of Learning Disabilities 21 (April 1988): 249-252; Thomas G. Haring, et al., "Adolescent Peer Tutoring and Special Friend Experiences," Journal of The Association for Persons with Severe Handicaps 12 (Winter 1987): 280-286; Vergason and Anderegg, 1-7.

55. Mary Beirne-Smith, "Peer Tutoring in Arithmetic for Children with Learning Disabilities," Exceptional Children 57 (February 1991): 330-337; David B. Lazerson, et al., " The Effectiveness of Cross-Age Tutoring with Truant, Junior High School Students with Learning Disabilities," Journal of Learning Disabilities 21 (April 1988): 253-255; Braddock and McPartland, 76-79.

56. Strickland, 18-23; Barnes, 52-54; Mollet, 55-56; Wolery, 127-135; Arthur J. Baroody and Janice Hume, "Meaningful Mathematics Instruction: The Case of Fractions," Remedial and Special Education 12 (May/June 1991): 54-67.

57. Ronald R. Edmonds, "Some Schools Work and More Can," Social Policy 9 (March/April 1979): 28-32; Peter Mortimore and Pam Sammons. "New Evidence on Effective Elementary Schools," Educational Leadership 45 (September 1987): 4-8.

58. Maurice J. Elias and John F. Clabby, "Teaching Social Decision Making," Educational Leadership 45 (March 1988): 52-55; David W. Johnson and Roger T. Johnson, "Social Skills for Successful Group Work," Educational Leadership 47 (December/January 1990): 29-33; Pat Kramer, "A Preventive Approach to Adolescent Problems," Educational Leadership 45 (March 1988): 56-57; Frank M. Gresham, "Misguided Mainstreaming: The Case for Social Skills Training with Handicapped Children," Exceptional Children 48 (February 1982): 422-433; Diane Baumgart, John Filler, and Brent A. Askvig, "Perceived Importance of Social Skills: A Survey of Teachers, Parents, and Other Professionals," Journal of Special Education 25(Summer 1991): 236-251.

59. Robert N. F. Conway and Lyn Gow, "Mainstreaming Special Class Students with Mild Handicaps Through Group Instruction," Remedial and Special Education 9 (September/October 1988): 34-40; Russell Gersten, John Woodward, and Craig Darch, "Direct Instruction: A Research-Based Approach to Curriculum Design and Teaching," Exceptional Children 53 (September 1986): 17-31; Vergason and Anderegg, 1-7.

60. Cynthia L. Wilson and Paul T. Sinddar, "Direct Instruction in Math Word Problems: Students with Learning Disabilities," Exceptional Children 57 (May 1991): 512-519; Sharon J. Derry, "Putting Learning Strategies to Work," Educational Leadership 46 (December/January 1988): 4-10; Beau Fly Jones, Jean Pierce, and Barbara Hunter, "Teaching Students to Construct Graphic Representations," Educational Leadership 46 (December/January 1989): 20-25; Thomas E. Scruggs and Margo A. Mastropieri, "Classroom Applications of Mnemonic Instruction: Acquisition, Maintenance, and Generalization," Exceptional Children 58 (December/January 1992): 219-229; D. Kim Reid and C. Addison Stone, "Why is Cognitive Instruction Effective? Underlying Learning Mechanisms," Remedial and Special Education 12 (May/June 1991): 8-19; Vergason and Anderegg, 1-7; Gersten, Woodward, and Darch, 17-31; Lous Heshusius, "Curriculum-Based Assessment and Direct Instruction: Critical Reflections on Fundamental Assumptions," Exceptional Children 57 (February 1991): 315-328.

61. Robert J. Marzano and Arthur L. Costa, "Question-Do Standardized Tests Measure General Cognitive Skills? Answer: No," Educational Leadership 45 (May 1988): 66-71; James E. Galagan, "Psychoeducational Testing: Turn Out the Lights, the Party's Over," Exceptional Children 52 (November 1985): 288-299; Douglas Fuchs, et al., "Norm-Referenced Tests: Are They Valid for Use with Handicapped Students?" Exceptional Children 54 (November 1987): 262-271.

62. Lynn S. Fuchs and Stanley L. Deno, "Paradigmatic Distinctions Between Instructionally Relevant Measurement Models," Exceptional Children 57 (May 1991): 488-500; Lynn S. Fuchs and Stanley L. Deno, "Effects of Curriculum Within Curriculum-Based Assessment," Exceptional Children 58 (December 1991/January 1992): 232-243.

63. Carolyn E. Brunner and Walter S. Majewski, "Mildly Handicapped Students Can Succeed with Learning Styles," Educational Leadership 48 (October 1990): 21-23; Marie Carbo, "Matching Reading Styles: Correcting Ineffective Instruction," Educational Leadership 45 (October 1987): 55-62.

64. Douglas Carnine, "Teaching Complex Content to Learning Disabled Students: The Role of Technology," Exceptional Children 55 (April 1989): 524-533; David C. Dwyer, Cathy Ringstaff, and Judy H. Sandholtz, "Changes in Teachers' Beliefs and Practices in Technology-Rich Classrooms," Educational Leadership 48 (May 1991): 45-52; Gail E. Fitzgerald, Debra K. Bauder, and Judy G. Werner, "Authoring CAI Lessons: Teachers as Developers," Teaching Exceptional Children 24 (Winter 1992): 15-21.

65. Maria Collins, Douglas Carnine, and Russell Gersten, "Elaborated Corrective Feedback and the Acquisition of Reasoning Skills: A Study of Computer-Assisted Instruction," Exceptional Children 54 (November 1987): 254-262; Carnine, 524-533.

66. Diane Baumgart and John Van Walleghen, "Staffing Strategies for Implementing Community-Based Instruction," Journal of The Association for Persons with Severe Handicaps 11 (Summer 1986): 92-102.

67. Karen Derk Gans, "Willingness of Regular and Special Educators to Teach Students with Handicaps," Exceptional Children 54 (September 1987): 41-45; Joan S. Safran and Stephen P. Safran, "Teacher Judgments of Problem Behaviors," Exceptional Children 54 (November 1987): 240-244; Kauffman, Lloyd, and McGee, 185-200; Garver-Pinhas and Schmelkin, 38-43.

68. John Salvia and Susan Munson, "Attitudes of Regular Education Teachers Toward Mainstreaming Mildly Handicapped Students" in Mainstreaming Handicapped Children: Outcomes, Controversies, and New Directions (Hillsdale: Lawrence Erlbaum Associates, 1986), 111-128.

69. Keith W. Whinnery, Lynn S. Fuchs, and Douglas Fuchs, "General, Special, and Remedial Teachers' Acceptance of Behavioral and Instructional Strategies for Mainstreaming Students with Mild Handicaps," Remedial and Special Education 12 (July/August 1991): 6-17; Salvia and Munson, 111-128; Semmel, et al., 9-24.

70. Brenda Smith Myles and Richard L. Simpson, "Regular Educators' Modification Preferences for Mainstreaming Mildly Handicapped Children," Journal of Special Education 22 (Winter 1989): 479-492; Jeanne Shay Schumm and Sharon Vaughn, "Making Adaptations for Mainstreamed Students: General Classroom Teachers' Perceptions," Remedial and Special Education 12 (July/August 1991): 18-27.

71. Meyers, Gelzheiser, and Yelich, 7-15; Salvia and Munson, 111-128.

72. Johnson and Pugach, 454-461.

73. Wang, Vaughan, and Dytman, 113-121; Tymitz-Wolf, 17-23; Johnson and Pugach, 454-461.

74. Porter and Brophy, 74-85; Kauffman, Lloyd and McGee, 185-200; Gallagher, 59-65; Wang, Vaughn, and Dytman, 113-121; Tymitz-Wolf, 17-23; Fitzpatrick, 18-22; Slavin and Madden, 4-13; Conway and Gow, 34-40; Brunner and Majewski, 21-23.

75. York and Vandercook, 6-16; Glomb and Morgan, 221-235; Brandt, "On Student Needs," 38-45.

76. Self, et al., 26-33; Johnson and Pugach, 454-461; Glatthorn, 31-35.

77. Bruce Joyce, Beverly Showers, and Carol Rolheiser-Bennett, "Staff Development and Student Learning: A Synthesis of Research on Models of Teaching," Educational Leadership 45 (October 1987): 11-23; Robert E. Blum and Anthony W. Kneidek, "Strategic Improvement that Focuses on Student Achievement," Educational Leadership 48 (April 1991): 17-21; Porter and Brophy, 74-85; Kauffman, Lloyd, and McGee 185-200; Gallagher, 59-65; Tymitz-Wolf, 17-23; Wang, Vaughn, and Dytman, 113-121; Fitzpatrick, 18-22; Slavin and Madden, 4-13; Conway and Gow, 34-40; Brunner and Mjewski, 21-23; Carbo, 55-62.

78. Glatthorn, 31-35; Claude Goldenberg and Ronald Gallimore, "Changing Teaching Takes More Than a One-Shot Workshop," Educational Leadership 49 (November 1991): 69-72; Mary M. Kennedy, "Some Surprising Findings on How Teachers Learn to Teach," Educational Leadership 49 (November 1991): 14-17; Cathy L. Crossland, Ted S. Hasselbring, and Kathleen O'Brien, "Project Impact: Inservice Plan for Assisting Classroom Teachers," Teacher Education and Special Education 5 (Spring 1982): 53-58.

79. Barbara E. Buswell and C. Beth Schaffner, "Families Supporting Inclusive Schooling" in Support Networks for Inclusive Schooling (Baltimore: Paul H. Brookes Publishing Co., 1990), 219-229; David L. Williams, Jr. and Nancy Feyl Chavkin, "Essential Elements of Strong Parent Involvement Programs," Educational Leadership 47 (October 1989): 18-23.

80. Kathleen McGookey, "Drama, Disability, and Your Classroom," Teaching Exceptional Children 24 (Winter 1992): 12-14.

81. David W. Mercenda, "Partners in Education: An Old Tradition Renamed," Educational Leadership 47 (October 1989): 4-7; Michael A. MacDowell, "Partnerships: Getting a Return on the Investment," Educational Leadership 47 (October 1989): 8-11.

82. Edmonds, 32.

83. William E. Bickel and Donna D. Bickel, "Effective Schools, Classrooms, and Instruction: Implications for Special Education," Exceptional Children 52 (April 1986): 497.

SELECTED BIBLIOGRAPHY

Affleck, J., Madge, S., Adams, A., & Lowenbraun, S. (1988). Integrated classroom versus resource model: Academic viability and effectiveness. *Exceptional Children*. 54 (4), 339-348.

Algozzine, B., & Maheady, L. (1986). When all else fails, teach! *Exceptional Children*. 52 (6), 487-488.

Augustine, D. K., Gruber, K. D., & Hanson, L. R. (1989/1990). Cooperation works. *Educational Leadership*. 47 (4), 4-7.

Baker, J. M., & Zigmond, N. (1990). Are regular education classes equipped to accommodate students with learning disabilities? *Exceptional Children*. 56 (6), 515-526.

Barnes, H. (1991). Learning that grows with the learner: An introduction to Waldorf education. *Educational Leadership*. 49 (2), 52-54.

Baroody, A. J., & Hume, J. (1991). Meaningful mathematics instruction: The case of fractions. *Remedial and Special Education*. 12 (3), 54-67.

Baumgart, D., Filler, J., & Askvig, B. A. (1991). Perceived importance of social skills: A survey of teachers, parents and other professionals. *Journal of Special Education*. 25 (2), 236-251.

Baumgart, D., & VanWallghem, J. (1986). Staffing strategies for implementing community-based instruction. *Journal of The Association for Persons with Severe Handicaps*. 11 (2), 92-102.

Bear, G. G., & Proctor, W. A. (1990). Impact of a full-time integration program on the achievement of nonhandicapped and mildly handicapped children. *Exceptionality*. 1 (4), 227-238.

Beckerman, T. M., & Good, T. L. (1981). The classroom ratio of high-and-low aptitude students and its effect on achievement. *American Educational Research Journal*. 18 (3), 317-327.

Beirne-Smith, M. (1991). Peer tutoring in arithmetic for children with learning disabilities. *Exceptional Children*. 57 (4), 330-337.

Bell, K., Young, R., Blair, M., & Nelson, R. (1990). Facilitating mainstreaming of students with behavioral disorders using classwide peer tutoring. *School Psychology Review*. 19 (4), 564- 573.

Berres, M., & Knoblock, P. (Eds.) (1987). *Program models for mainstreaming: Integrating students with moderate to severe disabilities*. Rockville, MD: Aspen Publishers.

Bickel, W. E., & Bickel, D. D. (1986). Effective schools, classrooms, and instruction: Implications for special education. *Exceptional Children*. 52 (6), 489-500.

Blum, R. E., & Kneidek, A. W. (1991). Strategic improvement that focuses on student achievement. *Educational Leadership*. 48 (7), 17-21.

Brandt, R. (1989/1990). On cooperative learning: A conversation with Spencer Kagan. *Educational Leadership*. 47 (4), 8-11.

Brandt, R. (1988). On student needs and team learning: A conversation with William Glasser. *Educational Leadership*. 45 (6), 38-45.

Braddock, J. H., & McPartland, J. M. (1990). Alternatives to tracking. *Educational Leadership*. 47 (7), 76-79.

Brady, M. P., McDougall, D., & Dennis, H. F. (1989). The schools, the courts, and the integration of students with severe handicaps. *Journal of Special Education*. 23 (1), 43-58.

Brinker, R. P., & Thorpe, M. E. (1986). Features of integrated educational ecologies that predict social behavior among severely mentally retarded and nonretarded students. *American Journal of Mental Deficiency*. 91 (2), 150-159.

Brinker R. P., & Thorpe, M. E. (1984). Integration of severely handicapped students and the proportion of IEP objectives achieved. *Exceptional Children*. 51 (2), 168-174.

Brown, L., et al. (1989). The home school: Why students with severe intellectual disabilities must attend the schools of their brothers, sisters, friends, and neighbors. *Journal of The Association for Persons with Severe Handicaps*. 14 (1), 1-7.

Brown, L., et al. (1983). The critical need for nonschool instruction in educational programs for severely handicapped students. *Journal of The Association for the Severely Handicapped*. 8 (3), 71-77.

Brown, L., et al. (1983). Opportunities available when severely handicapped students attend chronological age appropriate regular schools. *Journal of The Association for the Severely Handicapped*. 8 (1), 16-23.

Brunner, C. E., & Majewski, W. S. (1990). Mildly handicapped students can succeed with learning styles. *Educational Leadership*. 48 (2), 21-23.

Campbell, N. J., Dobson, J. E., & Bost, J. M. (1985). Educator

perceptions of behavior problems of mainstreamed students. *Exceptional Children*. 51 (4), 298-303.

Campbell, P. (1987). The integrated programming team: An approach for coordinating professionals of various disciplines in programs for students with severe and multiple handicaps. *Journal of The Association for Persons with Severe Handicaps*. 12 (2), 107-116.

Carbo, M. (1987). Matching reading styles: Correcting ineffective instruction. *Educational Leadership*. 45 (2), 55-62.

Carnine, D. (1989). Teaching complex content to learning disabled students: The role of technology. *Exceptional Children*. 55 (6), 524-533.

Chinn-Perez, G., Hartman, D., Park, H. S., Sacks, S., Wershing, A., & Gaylord-Ross, R. (1986). Maximizing social contact for secondary students with severe handicaps. *Journal of The Association for Persons with Severe Handicaps*. 11 (2), 118-124.

Collins, M., Carnine, D., & Gersten, R. (1987). Elaborated corrective feedback and the acquisition of reasoning skills: A study of computer-assisted instruction. *Exceptional Children*. 54 (3), 254-262.

Congressional Record, 121 Congressional Record, H. 7764.

Conway, R. N. F., & Gow, L. (1988). Mainstreaming special class students with mild handicaps through group instruction. *Remedial and Special Education*. 9 (5), 34-40.

Crossland, C. L., Hasselbring, T. S., & O'Brien, K. (1982). Project impact: Inservice plan for assisting classroom teachers. *Teacher Education and Special Education*. 5 (2), 53-58.

Davidson, N., & O'Leary, P. W. (1990). How cooperative learning can enhance mastery learning. *Educational Leadership*. 47 (5), 30-34.

Delquadri, J., Greenwood, C. R., Whorton, D., Carta, J. J., & Hall, R. V. (1986). Classwide peer tutoring. *Exceptional Children*. 52 (6), 535-542.

Derry, S. J. (1988). Putting learning strategies to work. *Educational Leadership*. 46 (4), 4-10.

Dwyer, D. C., Ringstaff, C., & Sandholtz, J. H. (1991). Changes in teachers' beliefs and practices in technology-rich classrooms. *Educational Leadership*. 48 (8), 45-52.

Edmonds, R. R. (1979). Some schools work and more can. *Social Policy*. 9 (5), 28-32.

Eiserman, W. D. (1988). Three types of peer tutoring: Effects on the attitudes of students with learning disabilities and their regular class peers. *Journal of Learning Disabilities*. 21 (4), 249-252.

Elias, M. J., & Clabby, J. F. (1988). Teaching social decision making. *Educational Leadership*. 45 (6), 52-55.

Evans, R. (1990). Making mainstreaming work through prereferral consultation. *Educational Leadership*. 48 (1), 73-77.

Fiedler, C. R., & Simpson, R. L. (1987). Modifying the attitudes of nonhandicapped high school students toward handicapped peers. *Exceptional Children*. 53 (4), 342-349.

Fink, W. E. (1979). Evaluation of the rural model program for severely handicapped students. Programs for Mental Retardation and Developmental Disabilities, Salem, OR.

Fitzgerald, G. E., Bauder, D. K., & Werner, J. G. (1992). Authoring CAI lessons: Teachers as developers. *Teaching Exceptional Children*. 24 (2), 15-21.

Fitzpatrick, K. A. (1991). Restructuring to achieve outcomes of significance for all students. *Educational Leadership*. 48 (8), 18-22.

Fuchs, L. S., & Deno, S. L. (1991). Effects of curriculum within curriculum-based measurement. *Exceptional Children*. 58 (3), 232-243.

Fuchs, L. S. & Deno, S. L. (1991). Paradigmatic distinctions between instructionally relevant measurement models. *Exceptional Children*. 57 (6), 488-500.

Fuchs, D., Fuchs, L. S., Benowitz, S., & Barringer, K. (1987). Norm-referenced tests: Are they valid for use with handicapped students? *Exceptional Children*. 54 (3), 262-271.

Galagan, J. E. (1985). Psychoeducational testing: Turn out the lights, the party's over. *Exceptional Children*. 52 (3), 288-299.

Gallagher, P. A. (1985). Inservice! A mandated special education course and its effects on regular classroom teachers. *Teacher Education and Special Education*. 8 (2), 59-65.

Gans, K. D. (1987). Willingness of regular and special educators to teach students with handicaps. *Exceptional Children*. 54 (1), 41-45.

Gartner, A. & Lipsky, D. K. (1987). Beyond special education: Toward a quality system for all students. *Harvard Education Review*. 5 (4), 367-395.

Garver, A., & Schmelkin, L. P. (1989). A multidimensional scaling study of administrators' and teachers' perceptions of disabilities. *Journal of Special Education*. 22 (4), 463-478.

Garver-Pinhas, A., & Schmelkin, L. P. (1989). Administrators' and teachers' attitudes toward mainstreaming. *Remedial and Special Education*. 10 (4), 38-43.

Gersten, R. (1990). Enemies real and imagined: Implications of "teachers' thinking about instruction" for collaboration between special and general education. *Remedial and Special Education*. 11 (6), 50-53.

Gersten, R., Woodward, J., & Darch, C. (1986). Direct instruction: A research-based approach to curriculum design and teaching. *Exceptional Children*. 53 (1), 17-31.

Giangreco, M. F., Edelman, S., & Dennis, R. (1991). Common professional practices that interfere with the integrated delivery of related services. *Remedial and Special Education*. 12 (2), 16-24.

Glatthorn, A. A. (1987). Cooperative professional development: Peer-centered options for teacher growth. *Educational Leadership*. 45 (3), 31-35.

Glomb, N. K., & Morgan, D. P. (1991). Resource room teachers' use of strategies that promote the success of handicapped students in regular classrooms. *Journal of Special Education*. 25 (2), 221-235.

Goldenberg, C., & Gallimore, R. (1991). Changing teaching takes more than a one-shot workshop. *Educational Leadership*. 49 (3), 69-72.

Golightly, C. J. (1987). Transdisciplinary training: A step forward in special education teacher preparation. *Teacher Education and Special Education*. 10 (3), 126-130.

Goodman, L. (1985). The effective schools movement and special education. *Teaching Exceptional Children*. 17 (2), 102-105.

Greenwood, C. R. (1991). Longitudinal analysis of time, engagement, and achievement in at-risk versus non-risk students. *Exceptional Children*. 57 (6), 521-535.

Gresham, F. M. (1982). Misguided mainstreaming: The case for social skills training with handicapped children. *Exceptional Children*. 48 (5), 422-433.

Haring, T. G., Breen, C., Pitts-Conway, V., Lee, M., & Gaylord-Ross, R. (1987). Adolescent peer tutoring and special friend experiences. *Journal of The Association for Persons with Severe Handicaps*. 12 (4), 280-286.

Heshusius, L. (1991). Curriculum-based assessment and direct instruction: Critical reflections of fundamental assumptions. *Exceptional Children*. 57 (4), 315-328.

Hunt, P., Goetz, L., & Anderson, J. (1986). The quality of IEP objectives associated with placement on integrated versus segregated school sites. *Journal of The Association for Persons with Severe Handicaps*. 11 (2), 125-130.

Jenkins, J. R., Pious, C. G., & Jewell, M. (1990). Special education and the regular education initiative: Basic assumptions. *Exceptional Children*. 56 (6), 479-491.

Jenkins, J. R., & Heinen, A. (1989). Students' preferences for service delivery: Pull-out, in-class, or integrated models. *Exceptional Children*. 55 (6), 516-523.

Jenkins, J. R., Pious, C. G., & Peterson, L. (1988). Categorical programs for remedial and handicapped students: Issues of validity. *Exceptional Children*. 55 (2), 147-158.

Johnson, D. W., & Johnson, R. T. (1990). Social skills for successful group work. *Educational Leadership*. 47 (4), 29-33.

Johnson, D. W., Johnson, R. T., & Holubec, E. J. (1986). *Circles of learning: Cooperation in the classroom*. (rev. ed.) Edina, MI; Interaction Book Company.

Johnson, L. J., & Pugach, M. C. (1991). Peer collaboration: Accommodating students with mild learning and behavior problems. *Exceptional Children*. 57 (5), 454-461.

Jones, B. F., Pierce, J., & Hunter, B. (1988). Teaching students to construct graphic representations. *Educational Leadership*. 46 (4), 20-25.

Joyce, B., Showers, B., & Rolheiser-Bennett, C. (1987). Staff development and student learning: A synthesis of research on models of teaching. *Educational Leadership*. 45 (2), 11-23.

Kauffman, J. M., Lloyd, J. W., & McGee, K. A. (1989). Adaptive and maladaptive behavior: Teachers' attitudes and their technical assistance needs. *Journal of Special Education*. 23 (2), 185-200.

Kennedy, M. M. (1991). Some surprising findings on how teachers learn to teach. *Educational Leadership*. 49 (3), 14-17.

King, J. A., & Evans, K. M. (1991). Can we achieve outcome-based education? *Educational Leadership*. 49 (6), 73-75.

Kramer, P. (1988). A preventive approach to adolescent problems. *Educational Leadership*. 45 (6), 56-57.

Lazerson, D. B., Foster, H. L., Brown, S. I., & Hummel, J. W. (1988). The effectiveness of cross-age tutoring with truant, junior high school students with learning disabilities. *Journal of Learning Disabilities*. 21 (4), 253-255.

Lowenbraun, S., Madge, S., & Affleck, J. (1990). Parental satisfaction with integrated class placements of special education and general education students. *Remedial and Special Education*. 11 (4), 37-40.

MacDowell, M. A. (1989). Partnerships: Getting a return on the investment. *Educational Leadership*. 47 (2), 8-11.

Maheady, L., Sacca, M. K., & Harper, G. F. (1988). Classwide peer tutoring with mildly handicapped high school students. *Exceptional Children*. 55 (1), 52-59.

Marzano, R. J., & Costa, A. L. (1988). Question-Do standardized tests measure general cognitive skills? Answer: No. *Educational Leadership*. 45 (8), 66-71.

Massachusetts Department of Education. (1991). *Chapter 766 regulations*. Quincy, MA; The Division of Special Education.

Massachusetts Department of Education. (1990). *Exit Facts: A report on students who left special education in school year 1988-1990*. Quincy, MA; The Division of Special Education.

Massachusetts Department of Education. (1989). *Individual school report*. Quincy, MA; The Bureau of Data Collection and Processing.

Massachusetts Department of Education. (1989). *School system summary report*. Quincy, MA; The Bureau of Data Collection and Processing.

McDonnell, A., McDonnell, J., Hardman, M., & McCune, G. (1991). Educating students with severe disabilities in their neighborhood school: The Utah elementary integration model. *Remedial and Special Education*. 12 (6), 34-45.

McDonnell, A. P., & Hardman, M. L. (1989). The desegregation of America's special schools: Strategies for change. *Journal of The Association for Persons with Severe Handicaps*. 14 (1), 68-74.

McGookey, K. (1992). Drama, disability, and your classroom. *Teaching Exceptional Children*. 24 (2), 12-14.

McWilliams, R. (1991). Special education: Return to the mainstream. *Governing*. 5 (3), 40-43.

Meisel, C. J. (1986). *Mainstreaming handicapped children: Outcomes, controversies, and new directions*. Hillsdale; Lawrence Erlbaum Associates, Publishers.

Mercenda, D. W. (1989). Partners in education: An old tradition renamed. *Educational Leadership*. 47 (2), 4-7.

Meyers, J., Gelzheiser, L. M., & Yelich, G. (1991). Do pull-in programs foster teacher collaboration? *Remedial and Special Education*. 12 (2), 7-15.

Mills v. Board of Education of the District of Columbia, 348 F. Supp. 866 (D. C. 1972).

Mollet, D. (1991). How the Waldorf approach changed a difficult class. *Educational Leadership*. 49 (2), 55-56.

Mortimore, P., & Sammons, P. (1987). New evidence on effective elementary schools. *Educational Leadership*. 45 (1), 4-8.

Myles, B. S., & Simpson, R. L. (1989). Regular educators' modification preferences for mainstreaming mildly handicapped children. *Journal of Special Education*. 22 (4), 479-491.

Palinscar, S. S., Ransom, K., & Derber, S. (1988). Collaborative research and development of reciprocal teaching. *Educational Leadership*. 46 (4), 37-40.

Peck, C., Anderson, J., & Pezzoli, M. (1988). *Social contact with students who have severe handicaps: Self-perceived benefits identified by nonhandicapped adolescents*. Paper presented at The Handicaps, Washington, D. C.

Pennsylvania Association for Retarded Children (PARC) v. Commonwealth of Pennsylvania, 334 F. Supp. 1257 (E.D. Pa. 1971).

P. L. 94-142, The Education of All Handicapped Children Act, 20 U.S.C. s. 1400 et seq. 1975.

Porter, A. C., & Brophy, J. (1988). Synthesis of research on good teaching: Insights from the work of the Institute for Research on Teaching. *Educational Leadership*. 45 (8), 74-85.

Potter, M. L., & Wamre, H. M. (1990). Curriculum-based measurement and developmental reading models: Opportunities for cross-validation. *Exceptional Children*. 57 (1), 16-25.

Reid, D. K., & Stone, C. A. (1991). Why is cognitive instruction effective? Underlying learning mechanisms. *Remedial and Special Education*. 12 (3), 8-19.

Rich, H., & Ross, S. (1989). Student's time on learning tasks in special education. *Exceptional Children*. 55 (6), 508-515.

Riffle, C. H. (1985). Factors influencing regular classroom teachers' referral practices. *Teacher Education and Special Education*. 8 (2), 66-74.

Roberts, C., Pratt, C., & Leach, D. (1991). Classroom and playground interaction of students with and without disabilities. *Exceptional Children*. 57 (3), 212-224.

Safran, J. S., & Safran, S. P. (1987). Teacher judgments of problem behaviors. *Exceptional Children*. 54 (3), 240-244.

Schaffner, B., & Buswell, B. (1988). *Discover the possibilities: A curriculum for teaching parents about integration*. Colorado Springs, CO; PEAK Parent Center Inc.

Schumm, J. S., & Vaughn, S. (1991). Making adaptations for mainstreamed students: General classroom teachers' perceptions. *Remedial and Special Education*. 12 (4), 18-27.

Scruggs, T. E., & Mastropieri, M. A. (1991). Classroom applications of mnemonic instruction: Acquisition, maintenance, and generalization. *Exceptional Children*. 58 (3), 219-229.

Self, H., Benning, A., Marston, D., & Magnusson, D. (1991). Cooperative teaching project: A model for students at risk. *Exceptional Children*. 58 (1), 26-33.

Semmel, M. I., Abernathy, T.V., Butera, G., & Lesar, S. (1991). Teacher perceptions of the regular education initiative. *Exceptional Children*. 58 (1), 9-24.

Sharon, Y., & Sharon, S. (1987). Training teachers for cooperative learning. *Educational Leadership*. 45 (3), 20-23.

Sherwood, S. K. (1990). A circle of friends in a 1st grade classroom. *Educational Leadership*. 48 (3), 41.

Shinn, M. S., Tindal, G. A., & Spira, D. A. (1987). Special education referrals as an index of teacher tolerance: Are teachers imperfect tests? *Exceptional Children*. 54 (1), 32-40.

Siperstein, G. N., & Goding, M. J. (1985). Teachers' behavior toward LD and non-LD children: A strategy for change. *Journal of Learning Disabilities*. 18 (3), 139-144.

Slavin, R., & Madden, N. (1989). What works for students at risk: A research synthesis. *Educational Leadership*. 46 (5), 4-13.

Slavin, R. E., Stevens, R. J., & Madden, N. A. (1988). Accommodating student diversity in reading and writing instruction: A cooperative learning approach. *Remedial and Special Education*. 9 (1), 60-66.

Slavin, R. (1987). Cooperative learning and the cooperative school. *Educational Leadership*. 45 (3), 7-13.

Slavin, R. E. (1987). Ability grouping and student achievement in elementary schools: A best-evidence synthesis. *Review of Educational Research*. 57 (3), 293-366.

Smith, S. W. (1990). Individualized education programs (IEPs) in special education-from intent to acquiescence. *Exceptional Children*. 57 (1), 6-14.

Spady, W. G., & Marshall, K. J. (1991). Beyond traditional outcome-based education. *Educational Leadership*. 49 (2), 67-72.

Stainback, W., Stainback, S., & Wilkinson, A. (1992). Encouraging peer supports and friendships. *Teaching Exceptional Children*. 24 (2), 6-11.

Stainback, W., & Stainback, S. (Eds). (1990). *Support networks for inclusive schooling*. Baltimore, MD; Paul H. Brookes Publishing Co.

Stainback, S., Stainback W., & Forest, M. (1989). *Educating all students in the mainstream of regular education*. Baltimore, MD; Paul H. Brookes Publishing Co.

Stainback, S. B., Stainback, W. C., & Hatcher, C. W. (1983). Nonhandicapped peer involvement in the education of severely handicapped students. *Journal of The Association for the Severely Handicapped*. 8 (1), 39-41.

Strickland, D. S. (1990). How young children learn to read and write. *Educational Leadership*. 47 (6), 18-23

Taylor, S. J., Bilken, D., Lehr, S., & Searl, S. (1987). *Purposeful integration...Inherently equal*. Prepared for the Technical Assistance for Parent Programs. Boston, MA.

Tymitz-Wolf, B. L. (1982). Extending the scope of inservice training for mainstreaming effectiveness. *Teacher Education and Special Education*. 5 (2), 17-23.

United States Department of Education. (1989). Eleventh annual report to Congress on the Implementation of The Education of The Handicapped Act. Washington, D.C.

Veldman, D. J., & Sanford, J. P. (1984). The influence of class ability level on student achievement and classroom behavior. *American Educational Research Journal*. 21 (3), 629-644.

Vergason, G. A., & Anderegg, M. L. (1991). Beyond the regular education initiative and the resource room controversy. *Focus on Exceptional Children*. 23 (7), 1-7.

Voeltz, L. M. (1982). Effects of structured interactions with severely handicapped peers on children's attitudes. *American Journal of Mental Deficiency*. 86 (4), 380-390.

Walberg, H. (1988). Synthesis of research on time and learning. *Educational Leadership*. 45 6, 76-85.

Walker, D. K., Singer, J. D., Palfrey, J. S., Orza, M., Wenger, M., & Butler, J. A. (1988). Who leaves and who stays in special education: A 2-year follow-up study. *Exceptional Children*. 54 (5), 393-402.

Wang, M. C., Reynolds, M. C., & Walberg, H. J. (Eds.) (1991). Handbook of Special Education: Research and practices. Vol 4, New York, NY; Pergamon Press.

Wang, M. C., Reynolds, M. C., & Walberg, H. J. (1988). Integrating the children of the second system. *Phi Delta Kappan*. 70 (3), 284-251.

Wang, M. C. & Reynolds, M. C. (1985). Avoiding the "catch 22" in special education reform. *Exceptional Children*. 51 (6), 497-502.

Wang, M. C., Vaughn, E. D., & Dytman, J. A. (1985). Staff development: A key ingredient of effective mainstreaming. *Teaching Exceptional Children*. 17 (2), 113-121.

Westling, D. L. (1989). Leadership for education of the mentally handicapped. *Educational Leadership*. 46 (6), 19-23.

Whinnery, K. W., Fuchs, L. S., & Fuchs, D. (1991). General, special, and remedial teachers' acceptance of behavioral and instructional strategies for mainstreaming students with mild handicaps. *Remedial and Special Education*. 12 (4), 6-17.

Wilcox, B., & Bellamy, G. T. (1982). *Design of high school programs for severely handicapped students*. Baltimore, MD; Brookes Publishing Co.

Will, M. (1986). Educating children with learning problems: A shared responsibility. *Exceptional Children*. 52 (5), 411-415.

Williams, D. L., & Chavkin, N. F. (1989). Essential elements of strong parent involvement programs. *Educational Leadership*. 47 (2), 18-23.

Wilson, C. L., & Sinddar, P. T. (1991). Direct instruction in math word problems: Students with learning disabilities. *Exceptional Children*. 57 (6), 512-519.

Wolery, M. (1991). Instruction in early childhood special education: Seeing through a glass darkly...Knowing in part. *Exceptional Children*. 58 (2), 127-135.

York, J., Vandercook, T., Macdonald, C., Heise-Neff, C., & Caughey, E. (1991). Feedback about integrating middle school students with severe disabilities in general education classes. *Exceptional Children*. 58 (3), 244-258.

York, J., & Vandercook, T. (1990). Strategies for achieving an integrated education for middle school students with severe disabilities. *Remedial and Special Education*. 11 (5), 6-16.

Zigmond, N., & Miller, S. E. (1986). Assessment for instructional planning. *Exceptional Children*. 52 (6), 501-509.

OTHER PUBLICATIONS IN THE SERIES

Changing Schools and Communities: A Systemic Approach to Dropout Prevention

A Focus on Discipline and Attendance

A Focus on Grade Retention

Educating the Whole Student: The School's Role in the Physical, Intellectual, Social, and Emotional Development of Children

Systemic School Change: A Comprehensive Approach to Raising Achievement and Keeping Students in School

Systemic School Change: School or District Assessment Instrument

Teacher Support Teams: Meeting the Challenge of At-Risk Students in Regular Education

Forthcoming September 1992:
A Focus on Instructional Improvement